# THE HEALTH OF PLYMOUTH

## IN 1928.

COLLEGE OF SURGEONS OF
3 [illegible] 29
LIBRARY

*To the Mayor, Aldermen and Citizens*
*of Plymouth.*

*I have the honour to submit for your consideration my Fourth Annual Report on the well-being of our City.*

*I should like to take this opportunity of recording my thanks to the various members of my staff for their help and co-operation. I should like also to thank the members of the City Council and the heads of City Departments for their assistance and encouragement.*

*I have the honour to be,*
*Your obedient Servant,*

*A. T. NANKIVELL,*
*Medical Officer of Health.*

TOWN HALL,
STONEHOUSE,
*February, 1929.*

# The Health of Plymouth
# in 1928.

BY

A. T. NANKIVELL,

M.D. (Lond.), Gold Medallist, State Medicine; B.S. Hons. (Lond.); M.R.C.P. (Lond.); M.R.C.S. (Eng.); D.P.H. (Camb.). Medical Officer of Health of the City and Port of Plymouth, School Medical Officer, General Medical Superintendent of the Corporation Hospitals and Sanatoria; Fellow of the Society of Medical Officers of Health; Fellow of the Royal Sanitary Institute; formerly Medical Officer of Health, etc., of St. Austell, Poole, and Hornsey; Captain R.A.M.C.; Demonstrator of Public Health and Lecturer in Epidemiology at King's College in The University of London.

COLLEGE OF SURGEONS OF ENGLAND
3 JUN 29

PLYMOUTH

MADE AND PRINTED AT THE BOWERING PRESS

1929

## LIST OF MEDICAL STAFF.

A. T. NANKIVELL, M.D. (Lond.), M.R.C.P. (Lond.), D.P.H. (Camb.).
*Medical Officer of Health.*

E. J. HYNES, F.R.C.S. (Ed.), D.P.H. (Lond.).
*Deputy Medical Officer of Health.*

M. SMELLIE, M.A., M.B., D.P.H. (Glas.).
*Maternity and Child Welfare Medical Officer.*

J. W. E. COLE, M.A., M.B. (Camb.), D.P.H. (Lond.).
*Deputy School Medical Officer.*

H. T. CHATFIELD, *M.C.*, M.B., B.CH. (Belf.), D.P.H. (Belf.).
*Clinical Tuberculosis Officer.*

D. DAVIDSON, M.D. (Lond.), M.R.C.P. (Lond.), D.P.H. (Lond.).
*Port Medical Officer.*

G. D. KETTLEWELL, L.R.C.P., M.R.C.S.
*Venereal Diseases Officer.*

A. T. BETTINSON, L.R.C.P., M.R.C.S.
*Resident Medical Officer, Didworthy Sanatorium.*

R. DAVIS, M.D. (Cal.), M.C.P. & S. (Sask., Can.).
*Resident Medical Officer, Udal Torre Sanatorium.*

G. RAYMOND, M.B., B.CH., D.P.H.
*Assistant School Medical Officer.*

E. M. BUTTERY, M.B. (Sheff.).
*Assistant School Medical Officer.*

MILDRED A. THYNNE, M.R.C.S., L.R.C.P., D.P.H.
*Assistant Maternity and Child Welfare Medical Officer.*

E. WORDLEY, *M.C.*, M.D. (Camb.), M.R.C.P. (Lond.).
*Pathologist (Part-time).*

W. H. DAVIS, L.R.C.P., M.R.C.S.
*Ophthalmic Surgeon (Part-time).*

C. R. CROWTHER, M.D., B.CH.
*Laryngologist (Part-time).*

Digitized by the Internet Archive
in 2018 with funding from
Wellcome Library

https://archive.org/details/b29990737

OF SURGEONS OF ENGLAND
-3 JUN 29

## CONTENTS.

| | PAGE |
|---|---|
| LIST OF MEDICAL STAFF . . . . . . | iii |
| GENERAL VITAL STATISTICS . . . . . . | vi |
| INTRODUCTORY . . . . . . . | 1 |
| APPENDIX I.—ADDITIONAL INFORMATION REQUIRED BY THE MINISTRY OF HEALTH . . . . . | 11 |
| Statistics and Social Conditions; General Provision of Health Services; Sanitary Circumstances of the Area; Housing; Inspection and Supervision of Food; Prevalence of, and Control over, Infectious Disease. | |
| APPENDIX II.—REPORT ON MATERNITY AND CHILD WELFARE WORK IN THE CITY OF PLYMOUTH . . . | 13 |
| APPENDIX III.—THE CONTROL OF INFECTIOUS DISEASE IN THE CITY . . . . . . | 29 |
| APPENDIX IV.—REPORT ON THE PLYMOUTH TUBERCULOSIS DISPENSARIES . . . . . . | 34 |
| APPENDIX V.—DIDWORTHY SANATORIUM REPORT FOR 1928 . | 42 |
| APPENDIX VI.—UDAL TORRE SANATORIUM . . . | 52 |
| APPENDIX VII.—REPORT OF THE VENEREAL DISEASES TREATMENT CENTRE . . . . . | 54 |
| APPENDIX VIII.—THE SCHOOL MEDICAL SERVICE OF PLYMOUTH | 58 |
| APPENDIX IX.—THE HEALTH OF THE PORT OF PLYMOUTH . | 74 |

## GENERAL VITAL STATISTICS

(*See Tables 1, 2, 3, 4, and 9.*)

### YEAR 1928.

| | |
|---|---|
| Total population (estimated) | 211,980 |
| Births—Total belonging to the District after allowing for Inward and Outward transfers | 3,609 |
| Deaths—Total belonging to the District after allowing for Inward and Outward transfers | 2,551 |
| Birth-rate per 1,000 estimated population | 17.0 |
| Death-rate do. do. do. | 12.0 |
| Infant Mortality—Deaths under 1 year per 1,000 births | 69.2 |

# INTRODUCTION

**Maternity and Child Welfare.**

Last year I wrote at some length upon this subject. I showed what good work the Council was doing and how greatly it was appreciated, and I inferred that extension of this work among mothers and little children would not only be desirable, but would be popular with the Citizens. This increase in our work has not yet been accomplished, but I hope that before long it will be forthcoming.

A few of the doctors in Plymouth who are engaged in what is known as general practice object to our Maternity and Child Welfare work and to that of our School Medical Service. They say, some of them, that we are robbing them of their patients, and that we are treating little children and mothers who could just as well be treated by their private doctors. To a small extent this may be true, but what is the result of all our work ? The result is money in the pocket of the private doctor, who later on will be the panel practitioner of these babies and school children.

If a panel doctor has, shall we say, one thousand healthy people on his panel, he makes about £500 a year, and has to do no work for it. But let him suppose he has a thousand invalids on his panel—chronic invalids, snippets and waste, those with a precarious hold on life—well, what about his finances then ? He will have to work very hard for his few shillings a year. Surely it is infinitely to the advantage of the private doctor that healthy and not sick persons should belong to his panel.

**The sick man and the doctor.**

But quite apart from that, what about the individual panel patient, to whom the panel doctor is a State medical servant ? Does the patient wish to remain sick and suffering, or does he want to be well ? Who, indeed, wishes to be a chronic invalid ?—not one of the doctor's panel patients ! Each wishes to know the joy of living and to feel a disregard of mortality. Every panel patient knows that life is very sweet : I am sure that the panel doctor feels it himself.

Here, then, we have the two : the doctor and the sick man both wishing to be well, to be prevented from disease, to be able to enjoy that happiness and lengthening of life which the science of preventive medicine has given them, and to benefit by that ten added years of expectation of life which the children of fifty years ago did not possess. The answer to the desires of the physician and his patient is not, however, to be found in the bottle of medicine. If medicine were so invaluable as the public believe, we should all of us live for ever. The secret of life is to be found in the prevention of illness and disease. It is, for example, infinitely better to prevent a death from cancer than to assuage the pain of one who suffers from its deadly inroads. It is evidently better to prevent a child from getting diphtheria rather than to try to save its life when it is dying of this dreadful affliction. The prevention of illness should become more and more the work of the panel practitioner, and he derives more merit and a fairer reputation when he saves a life than he obtains from having signed a dozen death certificates.

**Meat.**

Meat comes to our tables almost automatically, but very few of us worry about its origin. Good meat should be the flesh of animals which have been killed decently and in proper circumstances. It should come to our houses clean and pure and free from disease. At present in our City the meat eaten by the people is good and clean and free of infection, because it is all carefully inspected at the Municipal and other slaughter-houses. But it will happen in a year or so that the Municipal slaughter-house (an unseemly and inadequate place) will very properly be closed, and unless the City Corporation agrees to provide a new and better abattoir, then perhaps animals may be killed without supervision outside the City, and their carcases, sometimes diseased, may be smuggled into our area.

The risk attending such an illegal proceeding is, of course, enormous, and I do not think that any of the many decent butchers in Plymouth would care to face the imprisonment which might result if they tried to smuggle diseased meat into the City. Undoubtedly a public abattoir, built on modern lines, with proper cold storage, would be an asset to those who sell meat in Plymouth. A suitable site for a municipal slaughter-house is one which is upon a railway line at the edge of the town, and, if possible, with facilities for the transport of beasts by water. The neighbourhood of Prince Rock presents all these advantages, and it is to be hoped that although this matter has been debated without result for a quarter of a century, the provision of a City abattoir will not be much longer delayed.

**The Staff.**

All the medical members of the Public Health staff are fully occupied, and, indeed, many of them work long after the recognised hours. Year by year additional work is put by legislation or by Orders of the Ministry of Health upon the Public Health Department, and it is often a matter of considerable difficulty to carry out even a minimum of that which is demanded of us. Moreover, the City Council's Health Services are rightly becoming more and more popular—our clinics are crowded as never before, and yet the staff remains the same.

Matters become acute in the event of any member of the medical staff going sick. His or her work cannot be done by overworked colleagues and temporary help has to be obtained, since we have no reserve of any sort. Quite apart from any extension of the medical services, another whole-time doctor for " supply " and holiday purposes is necessary.

**Smallpox.**

During the year under review there were 28 cases of mild Smallpox recognised in Plymouth. Except when it attacked adults the disease was of a very mild type, so mild indeed that only a few of the patients called in their private doctors. This outbreak caused me much anxiety, for it appeared at one time as if the disease had got out of hand and would become endemic in the City. To have Smallpox, even mild Smallpox, perpetually present in the Three Towns would have been a financial tragedy. People from the country districts would become reluctant to enter Plymouth for shopping, marketing or pleasure, and the effect on the shipping of the port would be disastrous. The successful control of the outbreak entailed an enormous amount of work, and no less than 62,308 inspections were made of people who had been or might have been in contact with one of the Smallpox patients.

This mild type of Smallpox, so prevalent now in England, is kept alive by " missed " cases—by adults or children who are only slightly ill and who go about their ordinary business spreading the infection. We never can tell when more Smallpox infection may be brought into the City, and I welcome, therefore, the provision of the hospital at Lee Mill which is now nearing its completion.

To dignify this very mild Smallpox by the name of Smallpox seems a misuse of English. Smallpox most certainly it is, but it has none of the horror and death which for generations have been associated with that loathsome name. It might better be called "infective pustular dermatitis," and no administrative action might be taken regarding it. Then everyone who was unvaccinated would contract the disease, and the responsibility and cost would lie upon the unvaccinated individual and not upon the Municipality.

**Clean Milk.**

The Public Health Department continues its work of safeguarding the cleanliness and purity of the City's milk supply. During the year 978 samples were taken of Certified, Grade A, Pasteurised and ordinary milk in order to decide as to their cleanliness. In all cases the vendor was told the results of the analysis. Out of all the milk samples taken during the year no instance occurred where the tubercle bacillus was found in the milk. Apart from these samples, however, 619 samples were taken for analysis under the Sale of Food and Drugs Acts, to determine whether or not the milk had been adulterated by the addition of water or the abstraction of cream.

Clean milk is the best and cheapest food, and we should many of us be the better if we were to drink more of it. But for it to be of full value, however, it must be pure and clean, and it is therefore satisfactory to be able to put on record that the milk supplied to the citizens of Plymouth is more than usually good.

**Progress in 1928.**

During the year the work of centralising the laundry of the Corporation hospitals has been completed, and the re-organised laundry at Mount Gold is doing excellent work.

The new block for boys at Didworthy Sanatorium was opened by the Mayor of Plymouth in November.

The new X-ray plant at Beaumont House Tuberculosis Dispensary was completed during December.

A new motor ambulance has at last been provided.

Swilly Hospital has now been sanctioned by the Ministry of Health for the treatment of forty cases of intermediate and advanced Tuberculosis in women.

A beginning has been made with the Smallpox Hospital at Lee Mill.

Many schemes, notably that of Hospital reorganisation, have received the consideration of the Public Health Committee and the Council, and progress is being made towards the completion of these.

**Health Education.**

Sir George Newman has said " that the progress of science overleaps its grasp and that the enlightenment of the people is not keeping pace with the new science." Sound practice, as a rule, lags behind the ascertainment of truth, and popular education is the process by which we reduce the interval between the two. In Plymouth, during the past year, that side of truth which is health has been so clearly and so constantly placed before the public that if sound practice follows it can be said of every Plymothian " the truth shall make you free "—to health.

*Better Health.* Let me tell you how this truth has been proclaimed. 132,000 copies of our monthly magazine, *Better Health,* were distributed in 1928. Very large numbers of these have been sold, which proves how highly it is valued by the public. A special effort has been made to reach the uneducated and thoughtless, who most need instruction, by writing in an entertaining manner and by pictures and humourous illustrations ; but care has to be exercised not to lower the standard of authoritative instruction. One or more pages of Local Notes were added, and a special Children's Corner story was commenced in February. This story is a mixture of Nature study, health suggestions, humour and adventure, making a special appeal to the child mind. It is so much more easy to influence the child mind to form health habits than to alter the settled habits of the adult.

*Cinematograph Slides.* We have, now, sixty different slides which have been exhibited many thousands of times on the screens of our theatres and cinemas. Each slide conveys a simple health idea which is illustrated by a pleasant picture. For instance, " Let the sunshine into your homes " is illustrated by a wide open latticed window, through which the sun is shining into a pleasant room. Other subjects dealt with by this means, some of them in a humourous manner, are Diphtheria immunisation, Measles prevention, refuse disposal, clean food and milk, teeth, flies, etc. In my opinion this is one of the best forms of health education, as it reaches those who most need instruction, and it reaches them when they are receptive.

The Department holds the copyright for these slides, and many hundreds have been sold already to the big cities and towns in this country, and also in Australia. We have many subscribers to our Magazine, including the Government of Australia.

An objection was raised recently to the payment of 10*s*. 6*d*. a week for the exhibition of slides at one of our cinemas. Surely the objector had not applied thought to the subject. The cinema is a large one having an average of 1000 persons at each of three daily performances. Thus the idea was conveyed under the most favourable psychological conditions, i.e. when people are most receptive of ideas, to nearly 20,000 persons for the sum of 10*s*. 6*d*., surely a cheap form of education.

The " Runsyne " Machine, which bears an illuminated running message on health subjects, has been operating during the past year opposite the Theatre Royal and in Fore Street, Devonport. It has a capacity of 240 letters, and the subjects dealt with include Diphtheria immunisation, Measles prevention, the care of the teeth, flies, clean food and milk, the prevention of influenza, advice on Tuberculosis and general health habits. The following is a specimen message :—

> " Diphtheria kills many little children. Your child can be protected against catching this fatal disease. If you would like your child protected for life from Diphtheria come to the Town Hall, Stonehouse, any Thursday at ten o'clock."

The practical efficacy of these three means of health education, i.e. the Magazine, lantern slides, and the Runsyne Machine, is proved beyond doubt by the very encouraging results in one of the subjects dealt with, namely, Diphtheria immunisation. When children are brought for immunisation the parents are asked how they heard of it. In the vast majority of cases they reply that they read about it in the Magazine or saw it advertised at the cinema, or on the Runsyne.

A living Public Health Department is woven most intimately into the fabric of humanity. Unlike the officials in Whitehall and the central organisations in London, we live and work among the masses, and we know, therefore, their good and bad health habits, their errors, and their need of education. *Better Health* is a magazine for the masses. There are other health journals, but they are beyond the means of, and not in intimate touch with, the people, as we are.

Here is a true story. The surgeon of a Plymouth hospital recently operated on a woman suffering from cancer of the breast. He was gratified to find only a small growth. " If all my cases came as early as you have done," he said to his patient, " we should have far fewer deaths from cancer. How was it you consulted me so soon ? " The woman replied that her son had brought home a copy of *Better Health* and during the evening had read aloud an article on cancer. Later when going to bed she had felt her breast to see if by any chance there might be some warning lump. Less than a week later the surgeon had done his life-saving work. If people would not " wait and see," but would let a doctor " look and see," the majority of early cases of cancer would be cured.

A great deal of educational work was carried out at the Health Exhibition in the Drill Hall in July when many thousands of pamphlets and leaflets were distributed. During that week the Health and Cleanliness Council arranged each day film shows for school children at the Savoy Picture House (by kind permission of the proprietors), when 5,000 school children attended.

Health films are shown too occasionally to be of much use in health education. For this reason I think they should be as short as possible, not more than ten minutes in duration, so that they can be included in the programmes of ordinary cinema performances, and I am of opinion that the Government might well make a regulation insisting on this inclusion.

Before closing this section on Health Education I should like to thank the teaching profession in Plymouth for their interest and help. At most of the Plymouth schools articles in *Better Health* have been used as the subjects of essays and lectures, and I have seen many copies of essays by students which show how the lessons are being learned.

All the other methods of Health Education have been continued as in former years. Table 20 gives details of the work carried out.

## Some Causes of Death.

*Measles.* During the early months of 1928 there were no less than seventy-eight deaths of little children from Measles and from its complications. Measles is an accident and a fatal accident to many ; in no sense is it a disease which destroys the offspring of unsuitable parents. It is dreadfully infectious and is no respecter of persons, and children who perish from it may indeed be said to lose their lives through the ill-fortune or accident which carried the disease to their houses. Measles, spread as it is by personal contact, by coughing and sneezing, by " droplet infection," is one of those conditions against which no protection has yet been found. The best hope for the life of the measles child is speedy removal to a hospital where skilled treatment may be promptly given. Perhaps in the year 1930, when the present poor law hospitals will be available, it may be possible to offer good treatment to cases of measles and save thereby many lives.

*Tuberculosis.* Never have there been so few deaths from Tuberculosis as there were during 1928. A reference to Chart F will show the reader that Tuberculosis has been declining for several years. The causes of this slow disappearance of Tuberculosis are many and complexly interwoven. The disease is naturally dying out ; the standard of living is getting better ; people are becoming more educated and the activity of our Tuberculosis departments and sanatoria are increasing—these and other factors have an effect in causing the marked diminution in deaths from Tuberculosis which we are here able to record.

*Cancer.* But with this dread disease there is a marked increase of mortality. As deaths from Tuberculosis decline so do deaths from Cancer increase. Cancer is a disease mainly of middle-aged persons, of those aged forty-five years and upwards. Emphatically it is not a disease associated (as in Tuberculosis) with poverty ; indeed, it may possibly be related to over-indulgence. The actual cause of Cancer is not yet known. We do know, however, that any chronic irritation may lead to malignant disease. The protection which the public has against suffering and death from Cancer is early diagnosis. An early Cancer is curable. A little new growth can be checked. Early diagnosis by a competent physician or surgeon is the best protection which is available to the public. No one should neglect a chronic sore place, an ulcer, a swelling ; no one should neglect unusual bleeding or unusual discharge ; for the present hope of safety from Cancer lies in the appreciation of its existence at its very beginning. Last year there died 322 Plymouth citizens of Cancer.

**Housing.**

Women and children, and many men, spend more hours in their homes and houses than they pass away from these. If it is necessary for the factory, the school, the workplace, and the shop to be clean, fresh and wholesome, it is evidently of more importance that the home should be equally healthy. Sound health, lovely bodies, and good brains are not grown like mushrooms in damp and darkness ; and dirt and stagnation is no good soil for the flourishing of vigour and of health. In Plymouth it would be idle to deny that there is much house property of so poor and decadent a nature that it is not reasonably fit for human habitation. Table 18 shows some of the work which has been done during 1928 in re-conditioning, so far as practicable, some of the adverse housing conditions with which my Department has become acquainted ; but even after several years of hard work we are only touching the fringe of the " housing problem."

Shortly, what is wanted, and what we all desire to see, is the eradication of certain black patches in our City and the re-housing of the inhabitants of those places. The matter seems simple enough, as indeed it is. The only trouble is the financial one. We are to-day suffering for the sins of many generations, we are being penalised because our very great-grandfathers had no foresight and no conception of a great and stately city. But that fact is no excuse for inertia to-day ; and the provision of decent and healthy housing is, in these modern times, one of the first duties of our municipalities.

**The Poor Law.**

Very much hard work is ahead of this and every other municipality in the Kingdom, for the taking over next year of the old Poor Law administration will necessarily cause us all most anxious thought. We who are the guardians, not of the poor, but of the health of the people, need vision and imagination of the needs of the future. Our great grandparents had insufficient of these qualities ; hence our slum problems of to-day and our large expenditure in attempting to remedy the mistakes of former generations.

We should try now to combine the policy of " a penny saved is a penny earned " with that of " penny wise a pound foolish," and at the same time to look to future days so that our children and great grandchildren may praise our present clear vision of the future needs of our City. We may well ask ourselves what does each person in Plymouth want above everything. Is it cheap bus rides ; or street improvements ; or low rates ? No, certainly not ! He wishes above all things to be well and to be healthy, to be able to work to his full capacity. Health or better health ensures to him wealth and happiness of mind and body, for there is no satisfaction in disease.

But if disease should come, what does every citizen of Plymouth want and desire ? He should and will demand a very good hospital, in which his sickness may be diagnosed with accuracy and treated with skill, and, if possible, be cured rapidly and satisfactorily by specialists ; and it will be the privilege of the City Council in a few years' time to be able to offer these advantages to the ratepayers and citizens in their own City hospital.

Times change and we change with them. We have to adapt ourselves, often much too suddenly, to new conditions and to new circumstances. Next year we shall be responsible for the very large and complicated system of the relief of destitution and of sickness and of invalidity. Future development of the health services of our City needs therefore to be considered most closely and hardly by all of us.

The pyramids, the wireless set, St. Paul's Cathedral, the automatic telephone exchange, or even the mere mouse trap, were in the heads of their inventors before they came into being. The reorganisation, or rather the rejuvenation, the making new and efficient of the old Poor Law system, needs constructive thought, just as did those other wonders of imagination and administration. But thought, intelligence and experience are not, unfortunately, to be purchased in the public market. " What is the price of experience ? " says Blake. " Do men buy it for a song ? Or wisdom for a dance in the street ? No—it is bought at the price of all that a man hath."

*In the following pages will be found Reports written by medical members of my Staff and by myself upon various aspects of public health work in Plymouth and in our Institutions. From these it is possible to appreciate the nature of some of our wide-spread organisations. After these Appendices I have reproduced some Charts, which show in a graphic manner many matters of health importance. This Report is completed by a number of Tables, from which the reader may be informed of the intimate details of the work which has been done, during the year, in the interests of the people of Plymouth. It is regretted that, on account of illness, the presentation of this Report may be slightly delayed.*

*A. T. Nankivell.*

*February, 1929.*

## APPENDIX I

### Additional Information Required by The Ministry of Health

*Statistics and Social Conditions.* Area in acres, 5,711 ; population, 1921, 210,036 ; population, 1928, 211,980 ; number of inhabited houses, 29,014 ; number of families, 1921, 53,288 ; rateable value, 1928, £1,186,047 ; sum represented by a penny rate, £4,850.

*Births* (Legitimate)—1,662 males, 1,771 females. Total 3,433.

*Births* (Illegitimate)—87 males, 89 females. Total 176.

*Birth-rate,* 17.0.

*Deaths.* Total number of deaths, 2,551.

*Death-rate,* 12.0.

Number of women dying in, or in consequence of, childbirth, from sepsis, 5 ; from other causes, 17.

Deaths of infants under one year of age—Legitimate, 230 ; illegitimate, 20. Total, 250.

Deaths from measles (all ages), 78 ; whooping cough (all ages), 5 ; diarrhœa (under two years of age), 17.

*General provision of Health Services :*

(*a*) Fever—Mount Gold Isolation Hospital, 80 beds ; Swilly Isolation Hospital, *66 beds ; *Flamingo,* 22 beds for Smallpox.

(*b*) Tuberculosis and Maternity. See other sections of this report. * 40 beds at Swilly Hospital are set aside for Tuberculosis cases.

(*c*) Ambulance facilities. The Corporation has three ambulances for infectious cases. Other non-infectious and accident cases are dealt with by the St. John Ambulance Association.

(*d*) Clinics and Treatment Centres. Five Maternity and Child Welfare Centres, one Day Nursery (voluntary), three School Clinics, two Tuberculosis Dispensaries and one Treatment Centre for Venereal Diseases.

(*e*) Public Health Officers. See list at beginning of Report. In addition there are 10 District Sanitary Inspectors, 2 General Inspectors, 1 Rat Inspector, 1 Fish Inspector, 2 Housing Inspectors, 14 Health Visitors, and 9 School Nurses.

(*f*) Professional Nursing in the Home. Home nursing is done for the Corporation by Nurses from the Alexandra Nursing Home and the Three Towns Nursing Association.

(*g*) Midwives. A fee of 25*s*. is paid to midwives for attendance on necessitous cases when the patient is not entitled to Maternity Benefit under the National Health Insurance Act.

Number of midwives practising in Plymouth, 97. Of this number 17 left during 1928 after completing period of training in the Three Towns Nursing Association.

(*h*) Chemical Work. Samples are sent to the City Analyst, T. Tickle, Esq., Exeter.

*Sanitary Circumstances of the Area.* I have nothing to add to my remarks of last year. Details of inspections are given in Table 13.

*Housing.* Statistics for the year are given in Table 18.

*Inspection and Supervision of Food.* See body of Report and Tables 15 and 16.

*Prevalence of, and control over, Infectious Disease.* See Appendix III, and Tables 4, 7, and 13.

*Nursing Homes.* Number registered under the Nursing Homes' Registration Act, 1927 :—

| | |
|---|---|
| Maternity patients only .. .. .. .. | 10 |
| Mixed .. .. .. .. .. .. | 6 |
| Non-maternity .. .. .. .. .. | 1 |

# APPENDIX II

## Maternity and Child Welfare.

By MARION SMELLIE, M.A., M.B., D.P.H.

The year 1928 has been one of steady progress. The clinics continue to be well-attended. Beaumont Hut has already more than justified its erection, and it is gratifying to be able to report that a site has been allocated in Devonport Park for the erection of another much needed hut. Plans are now in preparation, and it is hoped to erect what will be a model Welfare Centre.

*Ante-Natal Work.* The value of this work is being gradually more and more appreciated. Mothers who have attended a clinic during one pregnancy invariably return at a future pregnancy. The majority of the midwives are only too willing to avail themselves of the facilities which the clinics afford. Mothers are encouraged to return after the confinement for post-natal examination, and as roughly two-thirds of the mothers attending our ante-natal clinics are under thirty years of age, the value of post-natal examination cannot be too greatly stressed. No separate clinic is held for post-natal cases, they are seen along with the ante-natal mothers. The following are the attendances at the various clinics throughout the year :—

| | *1st Attendances.* | *Total Attendances.* |
|---|---|---|
| Town Hall . . . . . . | 254 | 619 |
| Beaumont Hut . . . . | 189 | 570 |
| St. Aubyn Street . . . . | 150 | 363 |
| Wolseley Hall . . . . | 77 | 311 |
| Three Towns' Nursing Association | 190 | 374 |
| TOTAL . . | 860 | 2237 |

AGES OF MOTHERS IN A SERIES OF 594.

| *Under 20* | *20–25 yrs.* | *25–30 yrs.* | *30–35 yrs.* | *35–40 yrs.* | *40–45 yrs.* | *Over 45* |
|---|---|---|---|---|---|---|
| 57 | 160 | 161 | 122 | 73 | 18 | 3 |

A series of 650 cases presented the following abnormalities :—

Malpresentation, 23 ; Contracted pelvis, 25 ; Albuminuria, 41 ; Leucorrhœa, 213 ; Gonorrhœa, 17 ; Syphilis, 20 ; Alimentary conditions, 137 ; Respiratory diseases, 39 ; Requiring dental treatment, 257 ; Cardiac disease, 22 ; Varicose veins, 102 ; Hydramnios, 5 ; Hyperemesis gravidarum, 11 ; General debility, 44 ; Displacements, 7 ; Goitre, 12; Inguinal hernia, 7 ; Skin conditions, 8 ; Fibroids, 2 ; Carneous mole, 1 ; Carcinoma of cervix, 1.

Thirty-three cases were sent to nursing homes and about half of these had to be recommended for admission because the home conditions were totally unsuitable for a confinement. The remainder were recommended for medical reasons.

Payment is made to midwives for attendance on necessitous cases where Maternity Benefit under the National Health Insurance Act is not received. Application has to be made before confinement. Under this scheme 42 cases received assistance.

Twenty-three maternity bags were lent during the year.

*Midwives.* Of 3,600 births notified during the year approximately 2,629 were attended by midwives ; 718 notifications of sending for a medical practitioner under Section 14, Midwives Act, 1918, were received. The following is a summary of the conditions for which medical aid was summoned :—

| | |
|---|---|
| Prolonged labour .. .. .. | 157 |
| Ruptured perineum .. .. .. | 155 |
| Malpresentation .. .. .. | 60 |
| Albuminuria .. .. .. | 17 |
| Hæmorrhage .. .. .. | 31 |
| Discharging eyes .. .. .. | 55 |
| Deaths (Infants) .. .. .. | 7 |
| Rise of temperature .. .. .. | 32 |
| Stillborn. B.B.A. .. .. .. | 22 |
| Unsatisfactory condition .. .. | 95 |
| Feeble infant .. .. .. | 31 |
| Malformation .. .. .. | 6 |
| Miscarriage .. .. .. .. | 16 |
| Contracted pelvis .. .. .. | 7 |
| Cæsarean section .. .. .. | 3 |
| Carried forward .. | 694 |

| | |
|---|---|
| Brought forward .. | 694 |
| Fibroid .. .. .. .. | 2 |
| Phimosis .. .. .. .. | 1 |
| Retained placenta .. .. ..<br>,, membranes .. .. ..<br>,, chorion .. .. .. | 21 |
| TOTAL .. | 718 |

*Post-Graduate Course.* From April 16th to the 20th a post-graduate course for midwives was held at the Town Hall, Stonehouse. The course included a series of Lectures and Practical Demonstrations and was attended by midwives from various parts of Devon and Cornwall and by the majority of the local midwives. The venture was an undoubted success. At the completion of the course 44 certificates were granted to those who had attended regularly. The total number attending was 64.

*Home Helps.* The demand for home helps is increasing, and their services have been greatly appreciated in many homes where assistance was needed to carry on the ordinary family routine while the mother was in bed. This service is granted free to necessitous cases, the others pay at a proportionate rate, according to the family income. Application must be made during the ante-natal period and attendance at an Ante-natal Clinic is insisted upon, except in cases of illness.

*Convalescent Home.* Seven mothers greatly benefitted in health from a short stay at the Crownhill Convalescent Home. The utility of this scheme is considerably lessened by the fact that the home can only admit the mother, and not her baby. This means that many nursing mothers are unable to avail themselves of the advantages offered. Unfortunately the Home is closed during the winter months. It is hoped that some means will be devised of overcoming these defects.

There is also great need of some provision for Convalescent Home treatment for children, the lack of this is acutely felt at times.

*Dental Treatment.* This service is available for children under five years of age and for nursing and expectant mothers. In view of the unwillingness of expectant mothers to undergo dental treatment, it is gratifying to report a marked increase in the number availing themselves of the facilities offered.

| | *Number of extractions only.* | | *Dentures and* |
|---|---|---|---|
| | *Women.* | *Children.* | *Extractions.* |
| Free .. .. | 32 | 20 | — |
| Paid 25 per cent | — | — | 25 |
| Paid 50 per cent | 4 | 14 | 3 |
| Paid 100 per cent | 5 | 7 | — |
| TOTAL .. | 41 | 41 | 28 |

*Nursing Homes.* Under the Nursing Homes' Registration Act, 1927, which came into operation on July 1st, 1928, seventeen applications for registration were received and all were registered. Of these, eight are small Maternity Homes, one is a small Nursing Home (non-maternity), six are larger Nursing Homes for medical, surgical and maternity cases, and two are large Maternity Homes and training schools for midwives.

One application for exemption was received, and after due consideration refused.

All the registered Nursing Homes are visited quarterly by a medical officer.

*Diphtheria Immunisation.* An immunisation clinic is held at the Town Hall every Thursday morning and there has been a gradual increase in the number attending. In this field of preventive medicine the outlook is most encouraging. It needs but little imagination to visualise a not far-distant future when enlightened parents making full use of the resources of preventive medicine will no longer dread lest their children die of diphtheria. Sir George Newman says, " All parents hope that their children will not take diphtheria, but most are unaware that they can have them protected by inoculation. Artificial immunisation is one of the best ways of preventing diphtheria." Immunisation is a very simple procedure, and with the majority of children there is no reaction whatsoever.

At the end of December 275 children had received three injections, and 50 had commenced but had not completed the course ; 236 preliminary Schick tests were done (185 children, 51 nurses), the result being positive in 164 cases, negative in 67, and not read in 5 cases. The following tables show the distribution of positive and negative Schicks in the different age groups in a series of 231 cases :—

| *5 yrs.* | | *6 yrs.* | | *7 yrs.* | | *8 yrs.* | | *9 yrs.* | | *10 yrs.* | | *11 yrs.* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P. | N. | P. | N. | P. | N. | P. | N. | P. | N. | P. | N. | P. | N. |
| 4 | 2 | 14 | 0 | 23 | 5 | 27 | 9 | 25 | 5 | 7 | 6 | 21 | 2 |

| *12 yrs.* | | *13 yrs.* | | *14 yrs.* | | *15 yrs.* | | *16 yrs.* | | *17 yrs.* | | *18 yrs.* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P. | N. | P. | N. | P. | N. | P. | N. | P. | N. | P. | N. | P. | N. |
| 9 | 4 | 7 | 3 | 2 | 3 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 2 |

| *19 yrs.* | | *20 yrs.* | | *21 yrs.* | | *22 yrs.* | | *23 yrs.* | | *24 yrs.* | | *25 yrs.* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P. | N. | P. | N. | P. | N. | P. | N. | P. | N. | P. | N. | P. | N. |
| 1 | 3 | 7 | 7 | 1 | 7 | 4 | 3 | 4 | 2 | 5 | 1 | 0 | 2 |

In the age group 6–8 years 88 per cent were positive.

In the age group 8–20 years 70 per cent were positive.

To draw definite conclusions from the testing of so small a group of the adolescent population of the city would be erroneous, but it would appear that the percentage of Schick positive children in Plymouth is relatively high.

Of the 51 nurses Schick tested, 21 gave a positive result. The majority of the positives were subsequently immunised. In most cases the arm was painful and stiff for a few days following the injection, and in several cases the reaction was sufficiently severe to necessitate 24 to 48 hours off duty, this in spite of a preliminary dose of 0.1c.c. T.A.M.* given 24 hours before the first 1c.c. dose. Reactions like this are never encountered in children.

Of those immunised in 1928, 56 have been re-Schicked and 6, i.e. 10 per cent, were found to be still Schick positive six months after the last injection. These have all received more T.A.M. and will be re-tested again in due course.

---

* Toxoid-Antitoxin Mixture.

Of the 330 cases immunised in 1927 and of whom 75 were tested and found to be Schick negative before the end of 1927, a further 189 were Schick tested in 1928. In 11 cases the result of the test was not recorded owing to non-attendance. Of the remaining 178 cases, 156 were Schick negative and 22, i.e. roughly 12 per cent, Schick positive. In this positive group 7 only were over the age of five years, and of these 4 had been reduced from a normal to a slightly positive Schick. In one case the re-Schick was done eleven months after the third injection, in two cases ten months, in three cases eight months, in two cases six months, in two cases five months, in eight cases four months, and in four cases three months. The majority of these re-Schick positives were given at least two more 1c.c. dose of T.A.M. So far only eleven have been subjected to a second re-Schick, but in each case the result has been negative.

When dealing with numbers of immunised children it would appear to be inadvisable to Schick test within six months of the third injection of T.A.M. It is generally recognised that a small proportion of children are difficult to immunise. The figures for 1927 and 1928 show that approximately 12 per cent are not protected at the end of six months by a course of three 1c.c. injections given at weekly intervals. In the absence of systematic re-Schicking these would go undetected and might very probably bring discredit on immunisation work.

During the first few months of the year the routine procedure was to Schick test all those over five years of age and then to proceed to immunise the positives. It was found that the majority of children under eight reacted positively and latterly only those over eight years have been subjected to a preliminary Schick test.

Children who have had diphtheria are Schick tested one year later and the positives are immunised.

During the year four immunised children were sent to Mount Gold Isolation Hospital as cases of diphtheria. One, on admission, was found to be a case of scarlet fever, two were diagnosed by Dr. Hynes as definitely not clinical diphtheria. The fourth was clinically a true diphtheria, but the bacteriological findings were negative for diphtheria bacilli.

According to the Forbes' report, 1927, " three conditions are laid down to be fulfilled before the diagnosis of true clinical diphtheria in a Schick negative reactor can be accepted :—

1. The clinical appearance must be typical of diphtheria.
2. Diphtheria bacilli must be obtained in culture from the individual's throat or nose and proved virulent by guinea-pig test.
3. Before administration of antitoxin for treatment a sample of the individual's blood should be taken to ascertain by animal test the amount of natural antitoxin present, whether sufficient to ward off an ordinary attack of diphtheria or not, if the former, the evidence would be very strongly against clinical diphtheria."

If this standard is accepted, then even the fourth case cannot be regarded as true diphtheria. The child was six years old, immunised July–August, 1927, Schick negative, May, 1928. Onset of illness, October, 1928. Owing to non-attendance the Schick test was not read until the 15th day, and it may be that a very slightly positive result was thus missed.

## PUERPERAL PYREXIA AND PUERPERAL FEVER.

Fifty-eight cases were notified, and of these 32 were removed to hospital for treatment. Two were cases of mild pyrexia, following incomplete abortion, and cleared up rapidly after admission to hospital and evacuation of the retained products from the uterus. Of the remaining 65 cases :—

35 occurred on the district, with seven deaths.
21 occurred in Maternity Homes, with one death.

In 27 cases (four deaths) the confinement was conducted by a midwife only.

In 25 cases (two deaths) the confinement was conducted by a doctor and a midwife.

In 4 cases (two deaths) the confinement was conducted by a doctor and a handy woman.

In *19 cases* the pyrexia was mild in type, and the subsequent recovery uneventful. In this group the rise of temperature was in three instances due to mastitis, in three cases to mild sepsis following perineal tears, in two cases to retained placenta, and in three cases it was post-operative following Cæsarean section.

In *37 cases* the pyrexia was severe, death occurring in eight cases. The following is a short synopsis of each fatal case :—

1. Normal delivery. Onset third day. Died twenty-second day. Retained membranes + + . Lobar pneumonia. Uterus—non-hæmolytic streptococci. Urine—sterile.
2. Easy instrumental delivery. Onset seventh day. Died eleventh day. Parametric abscess. Blood-staph. albus (? contamination).
3. Version and instrumental delivery. Onset first day. Died twenty-fourth day. Blood—short-chained non-hæmolytic streptococci. Urine—Pus and b. coli.
4. Non-instrumental delivery. Onset fourth day. Died seventh day. Blood—non-hæmolytic streptococci. Urine—sterile, blood, casts, albumen. + Uterus—non-hæmolytic streptococci.
5. Non-instrumental delivery. Onset third day. Died tenth day. Epistaxis. Uterus—hæmolytic streptococci. Blood—sterile. Urine—b. coli.
6. Non-instrumental delivery. Onset sixth day. Died fifty-ninth day. Retained membranes. Laceration of cervix. Uterus—hæmolytic streptococci. Blood—sterile. Urine—sterile. W.R. negative. Septicæmia, followed later by pyæmia. (abscesses of breast, broad ligaments, etc.)
7. Prolonged instrumental labour. Onset fourteenth day (?). Died seventeenth day. Toxic nephritis, arthritis (multiple), basal pneumonia. Cultures not taken.
8. B.B.A. to a midwife. Onset third day. Died sixteenth day. Blood—sterile. Uterus—non-hæmolytic streptococci. Fragments of retained placenta.

This synopsis, though far from complete, is interesting because of the now generally accepted view that the streptococcus hæmolyticus is the etiological factor in the majority of cases of Puerperal Fever. In four of this series of eight cases death was apparently due to a non-hæmolytic streptococcus.

Of the remaining 29 severe cases 50 per cent were cases of difficult labour with manual or instrumental manipulations.

Severe local sepsis occurred in 50 per cent of these cases, the placenta or membranes being adherent or retained in 25 per cent. There were two cases of lobar pneumonia, one case of carcinoma of the cervix with a streptococcal infection of the uterus, one of phlegmasia alba dolens and one of a b. coli pyelonephrosis in which b. coli were cultured from the blood, uterus and urine, and in which the pyrexia rapidly subsided after surgical treatment of the renal condition.

*Seasonal incidence.* Cases of severe infection were rather more prevalent from October to March.

## ULTRA-VIOLET LIGHT CLINIC.

During the year 144 cases were treated, and of these 104 started treatment in 1928. The total attendances numbered 2,349.

The lamp in use is a mercury vapour one of the Hewittic-Levick Ulviarc type. Voltage 200–250, direct current, amperage 3.5. In July it was found necessary to substitute a new burner for the old one, which had deteriorated in its output of ultra-violet light ; 196 sessions were held during the year.

The conditions treated were :—

*Rickets*—94 cases :

Twenty cases completed a course of treatment extending over three to four months. Of these, eight were cured, eight much improved and four definitely improved. Five were referred for orthopædic treatment.

Twenty-six cases are still attending, eleven being much improved, twelve improved, and three in *statu quo.* Six were referred for orthopædic treatment.

Forty-three cases ceased to attend before completion of treatment. Of these, three were much improved, fourteen definitely improved and twenty-six in *statu quo.* Thirteen cases were referred for orthopædic treatment.

Five cases have had prophylactic treatment with, so far, no clinical evidence of rickets.

Four cases were sent to the Dame Hannah Roger's Orthopædic Hospital School, Ivybridge.

All cases were given Ol.Morrhuæ, or an Emulsion of Cod Liver Oil, while attending, and faulty diets were corrected.

It would again appear that ultra-violet radiation is an excellent prophylactic against rickets. Early cases invariably respond well to treatment, but where there is much deformity of bone it is advisable to correct this by orthopædic treatment early in the course of ultra-violet radiation.

In the majority of these cases the dosage was gradually increased from two to ten minutes twice weekly, the front and back of the body being irradiated alternately. In a number of cases the maximum exposure was kept at seven minutes and the results were equally good. None of the cases pigmented.

*Malnutrition.*—13 cases were treated :

Four cases were much improved, four improved, and five not improved. It is only in specially selected cases of mal-nutrition that ultra-violet light is of use, although it is sometimes found that a case which apparently makes no progress while undergoing treatment begins to steadily improve after treatment is stopped.

*Cervical adenitis* (Tuberculous).—11 cases :

Four cases, after receiving general light baths for a period of five to six months, showed marked improvement in general health, as well as in the local condition (size of glands, scars, sinuses, etc.).

One child, aged three, had below the right mandible a large fluctuant swelling which varied in size and consistency from time to time. No beneficial effect was observed from ultra-violet light over a period of several months, during which time the child was also under observation and treatment at the Tuberculosis Dispensary. Finally the gland was excised, and two months after the operation the child had gained four pounds in weight.

A woman of forty-one, with a discharging sinus in the neck, improved markedly with general baths of seven minutes twice weekly at 24″, plus three minutes at 18″ to the neck only. At the end of five months the sinus had completely closed in.

Five for various reasons were unable to complete their treatment, but all showed considerable improvement.

*Skin disease.*—15 cases. *Lupus vulgaris.*—2 cases.

In one, an old-standing case with marked scarring of face and neck, treatment was disappointing ; in the other, a lupus of the cheek, the local condition varied greatly from time to time, and on the whole was improved. Some weeks after cessation of ultra-violet radiation there was a marked improvement in the general condition. This has continued up to date.

*Seborrhoic dermatitis.*—5 cases.

Two cured and two much improved. One beginning treatment.

*Flexural dermatitis.*—2 cases.

Both improved, and in one the improvement is still maintained two months after cessation of treatment.

*Pruritus vulvæ* (pregnancy).—1 case.

Marked benefit.

*Papular urticaria.*—1 case.

Improving.

*Post-operative fæcal fistula* of anterior abdominal wall, in the centre of a large overstretched scar. The scar became firmer and altogether much healthier. The sinus grew gradually smaller, but had not entirely closed in when treatment was stopped. The general condition was greatly improved.

OTHER CONDITIONS :—

*Cœliac disease.*—2 cases.

No improvement.

*Pseudo hypertrophic muscular paralysis.*—1 case :

The muscular condition remained unchanged, but the relatives noticed a marked improvement in the child's general health. He was said to be much brighter and happier and to have a better appetite.

*Encephalitis lethargica.*—1 case.

Attack two years previously. Treated for five months, and after an interval of two months, a further three months. There was marked improvement in walking and in school work generally.

*Hydrocephalic mongol.*—1 case.

Said to be brighter.

*Debility.*—4 cases, were treated with satisfactory improvement.

During the year it was decided to test the value of irradiated ergosterol in the treatment of rickets.

Two untreated cases with marked bony deformity were selected. Both were given two pellets of radiostol daily over a period of four months and X-rayed before, during, and at the cessation of treatment.

The first was aged one year and nine months, with bowed tibiæ, epiphyses at wrists, ankles, and costo-chondral junctions all + +, and not walking. At the end of two months there was a very definite increase in the calcification of the epiphyses, and at the end of four months a still further deposit of bone in the epiphyses. He began to walk three and a half months after treatment started and the legs were straighter. No addition to the diet was given. The diet was a poor one. Cod Liver Oil was not prescribed.

The second was a girl aged eighteen months with marked bowing of tibiæ, enlarged epiphyses, a wide fontanelle, and ten teeth. The bowing of the tibiæ was so considerable that it was deemed advisable to have the legs put in plasters at the onset of treatment. During the four months the plasters were changed four times. Again no change was made in the diet and Cod Liver Oil was not prescribed. There was marked improvement in the deposition of bone in the epiphyses and the legs were much straighter at the end of four months.

Radiostol is therefore a valuable adjunct to treatment when attendance for ultra-violet radiation is impossible. To secure a sufficiency of Vitamin A, Cod Liver Oil should be given at the same time, and faulty diets corrected as far as is possible.

At the request of the Medical Officer of Health a research is being undertaken into the influence of Vitamin D on expectant and nursing mothers in so far as it will or will not prevent rickets in their forthcoming children.

For the purpose of this research expectant and nursing mothers are being supplied with dried milk only. Two preparations are being used—Ambrosia, and Ambrosia with added Vitamin D. There has been no selection of cases, Ambrosia and Ambrosia D being issued alternately in strict rotation as applications are received. As far as possible the mothers are on a similar diet. Each mother during the nursing period has been supplied with the same preparation as in the last three months of her pregnancy.

Sufficient time has not yet elapsed to judge of the results on a large scale.

Only cases where the mother was in receipt of the milk for the last three months of her pregnancy and continued to take it while nursing have been considered. All others were excluded as not being strictly comparable.

In a series of twenty such cases when the baby was three months old it was found that of those on Ambrosia D eight were breast fed and two artificially fed, whereas of those on Ambrosia, six were breast fed, two were on Ambrosia, and two were having breast milk with supplementary feeds of Ambrosia. None of these showed any clinical signs of rickets. As far as one could judge the balance of nutrition was perhaps in favour of Ambrosia D.

The amount of added Vitamin D is a small one, equivalent to 1 tea-spoonful of Cod Liver Oil per pint of milk. It would appear that this makes little difference as far as clinical results go in a milk that already has a satisfactory Vitamin D content.

I may not conclude without recording my appreciation of the excellent work done by the Staff of the Department throughout the year. I also take this opportunity of thanking our Voluntary Workers for the valuable assistance which they so willingly give at the various Welfare Centres.

## Some Notes on Beaumont Hut, Wolseley Hall, St. Aubyn Street and Albert Road.

By MILDRED A. THYNNE, M.R.C.S., L.R.C.P., D.P.H.
(*Assistant Medical Officer.*)

*General.* Convincing evidence is given of the increasing interest in Child Welfare among Plymouth mothers, by comparing the numbers entered in the register for 1928 with those of the previous year. It becomes more and more evident that it is the education they receive that is valued. The majority of them neither need, nor do they ask any other assistance. Such mothers are eager to be instructed in the smallest details that may affect the welfare of their babies. It is these mothers, who, by zealously carrying out all instructions, amply repay the time spent in teaching them.

*Clinics for Children from 1½ years to 5 years.* In November, a special monthly clinic was started at each Centre for children between the ages of eighteen months and five years. Children in this age-group frequently suffer from unconscious neglect. The mother's time is chiefly occupied with a younger baby. The visits of the Health Visitor are directed primarily in the interests of the new baby. At the clinic, the mother is generally unable to undress two children, and so, again, the baby takes preference. In homes where there is no younger child, the Health Visitor cannot visit sufficiently often to keep the little one under regular observation.

By definitely setting apart one session in each month for these children, more time can be devoted to their interests. They can be regularly undressed and weighed, and medically examined. Their diet and habits can be scrutinised and advised upon.

During the last quarter of the year children of this age-group were weighed monthly. Their attendance, therefore, was only recorded monthly. Consequently the total attendance figure for this period is lower than in the earlier months of the year, when every visit to the Centre was recorded, whether the children were undressed and examined, or weighed fully clothed.

*Beaumont Hut.* The number of babies entered on the register in 1928 was 1,238, as compared with 906 in 1927.

The enclosure of a small part of the Park next to the Hut has been welcomed as a playground by the children. They can now safely play in the fresh air and sunshine, while their mothers are engaged with a younger baby, or working at the sewing class.

The new sloping path which has replaced the steps leading into Ebrington Street has made access to the Hut easier.

The additional perambulator accommodation, recently erected, has been appreciated by the mothers.

*Wolseley Hall.* The number of babies entered on the register in 1928 was 459, as compared with 380 in 1927.

The mothers who attend this Centre are drawn from a very wide area : Higher St. Budeaux, Saltash Passage, Weston Mill and Camel's Head. There is apparently need for a new centre on the northern outskirts of the City.

The premises at Wolseley Hall are suitable and convenient, and unless there is an unusually large attendance, quite big enough.

The number of new mothers examined at the Ante-natal Clinic at this Centre has increased from 41 in 1927 to 67 in 1928 (31 in 1926).

*St. Aubyn Street.* The number of babies entered on the register was 453, as compared with 425 in 1927. The rooms at this Centre are small and difficult of access, but the work is much needed and appreciated by the mothers.

The number of new mothers examined at the Ante-natal Clinic was 150 in 1928, compared with 83 in 1927.

*Albert Road.* The number of babies entered on the register was 316, as compared with 389 in 1927. Not only has the total number decreased, but the average weekly attendance is less. This is probably due to the very unsuitable premises. Much credit is due to the Health Visitors of this Centre for keeping so many mothers together under such trying conditions. Apart from the fact that the premises are not suitable for baby clinics, there are no facilities for holding an ante-natal clinic or a sewing class, both of which are essential parts of the Maternity and Child Welfare service.

*Ante-natal Supervision at the Three Towns' Nursing Association.* Approximately a quarter of the total number of births in the

City are attended by the nurses of the Three Towns' Nursing Association. Of 141 primiparæ attended in their own homes, 120 were medically examined at the Ante-natal Clinic.

One hundred and fifty primiparæ were admitted into the Home ; of these 40 were examined at the Clinic.

*Hernia of the Umbilicus.* The unusually large number of umbilical hernias found at the inspection of new babies at the Centres led to an inquiry into possible causes.

A record has been kept of the following cases :—

Beaumont Hut, 34 babies ; Wolseley Hall, 16 babies ; St. Aubyn Street, 8 babies ; Albert Road, 11 babies.

The hernias varied in size from a slight protrusion, which was reduced by the application of a weekly strapping for one month, to large hernias, which were still unreduced at the seventh or eighth month. A record of the midwives responsible for these cases was kept. Enquiries elicited the fact that a number were apparently due to the use of copper sulphate (" blue stone ") in order to hasten the separation of the cord. All the practising midwives in the City have been requested to cease using copper sulphate for this purpose, and have willingly complied. Although all umbilical hernias cannot be attributed to this cause, there was a slight diminution in the number of umbilical hernias seen in the later months of the year. It remains to be seen whether this diminution will be maintained.

*Intestinal Parasites.* An investigation was made as to the incidence of intestinal parasites occurring in children attending the Centres.

The distribution was as follows :—

*Thread Worms.*—Beaumont Hut, 15 children ; Wolseley Hall, 11 children ; St. Aubyn Street, 5 children ; Albert Road, 7 children.

In addition, three mothers had threadworms. They were referred to their own doctors for treatment. Thanks are due to the nurses of the Three Towns' Nursing Association for their willing help in the somewhat tedious treatment of daily lavage of these children. The records showed that the children affected lived near to one another, but the numbers were too small for any generalization to be made.

# APPENDIX III.

## The Control of Infectious Disease in the City.

By E. J. HYNES, F.R.C.S. (Ed.), D.P.H. (Lond.).

*Scarlet Fever.* During the year 1928, 168 notifications of Scarlet Fever were received (including one Naval case, which was treated in the Naval Hospital) ; of these 136 (81 per cent) were treated in the City Isolation Hospital, Mount Gold. Twelve cases were admitted from districts outside the City.

One return case was notified (i.e. a second case of Scarlet Fever occurring within twenty-eight days of the return from hospital of a Scarlet Fever patient). This is a remarkable testimonial to the efficacy of serum treatment. The average hospital return rate is between 2 and 4 per cent.

The incidence of Scarlet Fever in Plymouth has been rapidly diminishing. In 1926 the number of notifications was 606 ; in 1927, 325, and in 1928 the number of notifications was 168. The disease has been generally of a mild type. One patient died of Meningitis, secondary to a chronic infection of the ear which was present before the attack of Scarlet Fever. All cases admitted during the acute stage of the disease have been treated with Scarlatina anti-toxic serum. Complications have been few and mild ; this is probably due to the serum.

It is interesting and instructive to compare the average duration of stay in hospital before and after the institution of serum treatment. For the three years 1923, 1924 and 1925, without serum treatment, the average duration of stay in hospital of patients was 45.2 days ; for the three years 1926, 1927 and 1928, with serum treatment, the average duration of stay in hospital of patients was 29.3 days—an average reduction of stay in hospital of nearly 16 days per patient.

The serum has also proved of great value in the temporary immunisation of contacts. On several occasions I have been asked to see sporadic cases of Scarlet Fever occurring in the children's wards of General Hospitals in the City. A small dose of serum has been administered to the children in immediate contact with the affected child, and they have not contracted the disease. This has saved us many admissions to the Isolation Hospital and been of great benefit to the General Hospital concerned.

*Diphtheria.* During the year 423 cases were notified ; of these 391 (92.4 per cent) were treated at Mount Gold Hospital.

In 1926 there were 259 cases treated at the Isolation Hospitals, and the number of deaths in Hospital was 32.

In 1927 there were 357 cases treated at the Isolation Hospitals, and the number of deaths in Hospital was 20.

In 1928 there were 391 cases treated at Mount Gold Hospital, and the number of deaths was 29, including 3 cases admitted from outside the City.

Thirty-four cases were admitted from districts outside Plymouth. Seventy-nine Plymouth cases, and three outside cases, after observation in hospital and repeated bacteriological tests, were found to be suffering from diseases other than Diphtheria (mainly Tonsillitis). These patients were sent home when well enough to travel, as soon as the presence of Diphtheria had been disproved. There were 29 deaths in hospital, six died at home without hospital treatment. Deducting the 79 cases in which the diagnosis of Diphtheria was disproved after admission to hospital, there remain :—

343 treated in hospital. Of these 29 died, a percentage mortality of 8.33. Of 31 treated at home, 6 died, a percentage mortality of 19.33.

These figures show the value of treatment in hospital.

These fatal cases came to hospital in a hopelessly advanced stage of the disease. Nine died within twenty-four hours of admission, thirteen of the remainder within a week.

It is heartbreaking to see these children come in to hospital too late : with their throats, and, in some cases even their mouths, covered with diphtheritic membrane. If only those in charge of children could be taught to look at the throat of every child that was listless and ill, and obtain medical advice immediately, if they saw spots on the tonsils or palate, these tragedies would not occur.

Every case that comes to hospital, or receives a sufficient dose of anti-toxin before admission, at an early or comparatively early stage of the disease, recovers.

The patients come from all parts of the City and from neighbouring districts, and the disease was not confined to any one school. The infection spread from one child to another by contact, and was certainly not caused by any defect in school sanitation.

*Prevention of Diphtheria.* The only preventative is the education of the community, which is proceeding apace ; teaching them—

(1) to avail themselves at once of the facilities offered for the immunisation of their children against Diphtheria.

(2) to examine the throat in every case of illness, especially of children, always remembering that Diphtheria is generally painless and may be present without the least complaint of sore throat.

The general dialogue when questioning a parent about a child brought in desperately ill with Diphtheria is something like this:—

" Did you notice that the child was ill several days ago ? "

" I thought it only had a cold."

" Did you look into his throat ? "

" No."

When we get the answer " yes " we shall have few deaths from Diphtheria.

*Schick Tests and Immunisation.* In addition to the immunisation carried out at the Town Hall by the Medical Officer of the Maternity and Child Welfare Department, thirty-two children at the United Services Orphanage were Schick-tested during the year. Nineteen who were found to be susceptible to Diphtheria and three younger children were immunised. All new children admitted to this institution have been immunised since 1925. No case of Diphtheria has occurred there since this procedure has been adopted, though many cases were sent to hospital in previous years, and although Diphtheria was imported into the home by non-immunised newcomers on one occasion. This institution provides a vivid object lesson of what can and eventually will, one hopes, happen when Schick testing and immunisation become general.

Since immunisation has been practised in Plymouth, no immunised child has been admitted to hospital, proved clinically and bacteriologically to be suffering from the disease.

*Enteric Fever.* Six cases were notified; of these one was admitted to Mount Gold Hospital. He recovered.

*Smallpox.* Twenty-eight cases were notified. The disease was of a mild type. All the cases were admitted to the Smallpox Hospital at Lee Mill and all recovered. The Medical Officer of Health has issued a full report on this outbreak.

*Chicken-pox.* 941 cases were notified. These cases were visited and examined in their homes to ensure that there was no undiagnosed case of Smallpox among them.

*Visits to Institutions, Schools, etc.* Where several cases of Diphtheria or Scarlet Fever have occurred in any one school, the school has been visited, the children systematically examined, and in case of Diphtheria, swabs taken from their throats and bacteriologically examined. Where positive results have been obtained, the children have been removed to hospital for observation and treatment.

Many patients suffering from or suspected to be suffering from infectious disease have been visited at the request of or in consultation with their medical attendant.

When necessary for diagnosis, lumbar punctures have been performed, or blood or other specimens obtained for examination by the City Pathologist.

Many of these patients have been admitted to the Isolation Hospital. In other cases, where necessary, arrangements have been made for their admission to one or other of the general hospitals of the City.

We have again to thank the members of the Honorary Staffs of the South Devon and East Cornwall Hospital and of the Royal Albert Hospital for their kindness in admitting cases for treatment which could not be dealt with in our City institutions.

*Pulmonary Tuberculosis.* In April, 1927, a ward was opened at Swilly Hospital for the treatment of 15 female patients suffering from advanced Tuberculosis. In September, 1928, the number of beds was increased to forty.

During 1928, 77 patients have been admitted: twelve died during the year, one of Tubercular Meningitis.

Nine carefully selected patients were treated with intravenous injections of sanocrysin, with, I think, considerable benefit; and one by artificial pneumothorax, by which her condition was very much improved.

Fifty-two cases were discharged from hospital during the year. Ten derived no benefit; two, after two courses of sanocrysin injections, improved sufficiently for transfer to the colony at Papworth; twenty-three went home much improved; five discharged themselves after only a few days in hospital; and twelve left at their own request, before having received sufficient treatment.

The new X-ray plant at Beaumont House has already been very helpful and will greatly increase the efficiency of our treatment.

*Gastro-Enteritis.* Only one case was admitted during the year. This baby was discharged, condition improved, after five days' treatment.

## APPENDIX IV

## Report on the Plymouth Tuberculosis Dispensaries.

By H. T. CHATFIELD, M.C., M.B., B.CH., D.P.H.

*(Assistant Medical Officer of Health.)*

Reference to Tables numbered 10, 11, 12, 12A and 12B, and Charts lettered E, F and G, accompanying this Report will shew that the work of the Department has not diminished in any way, but rather the reverse.

*Dispensary.* The tendency to use the Dispensary, on the part of the general population, remains as great as last year, and it is felt that the Dispensary is taking that part it should occupy in the lives of the citizens.

I should like to express my appreciation for the close co-operation which exists generally between general practitioners in the City and myself. This is the greatest aid for providing treatment for patients that I know, and I trust that our present happy relations will grow even more.

*Notifications.* Although the number of primary notifications for tuberculosis for the year is slightly above those for the previous year, it must be borne in mind that there were about fifty more cases sent to the Dispensary for diagnosis this year than during 1927.

*Deaths.* It is gratifying to note that the number of deaths from Tuberculosis during the year was only 191. This is again lower than in former years and is probably due to the fact that a larger number of patients has received Institutional Treatment and also that this was provided before the disease had progressed too far.

It cannot be emphasised too much that the early case can be cured, but that the advanced case cannot be cured.

*Institutions—*

*Didworthy.* The accommodation here has been increased by

14 beds for children to 90 beds for the reception of early cases of Pulmonary Tuberculosis. This Institution now has 35 beds for adult males, 25 for adult females, and 30 for boys and girls. All the beds have been well maintained during the year and the Sanatorium is rightly gaining in popularity.

*Udal Torre.* This Institution, with its 39 beds for intermediate and advanced cases of Pulmonary Tuberculosis in adult males, has also been kept well filled during the whole year.

*Swilly.* The increase during the year from 15 to 40 beds at this hospital for the reception of intermediate and advanced cases of Pulmonary Tuberculosis in adult females has effectively dealt with our waiting list for this class of patient. The accommodation amply meets our needs and the Hospital is doing a very real work in the Department.

*Outside Institutions—*

*Pulmonary.* We have had cases in St. Barnabas Home, Torquay; Nordrach-upon-Mendip Sanatorium, Blagdon; St. Michael's Home, Axbridge; the Devon County Institutions at Whitecliff, Torquay, and Hawkmoor, Bovey Tracy; the Hospital for Consumption and Diseases of the Chest, Brompton; King Edward VII Sanatorium, Midhurst; and at St. Anthony's Hospital, Cheam.

At the moment there are no cases awaiting admission to such Institutions as these.

*Non-Pulmonary.* As you know, we are still at the mercy of outside Institutions for the treatment of our cases of Non-Pulmonary Tuberculosis, but the end of this unsatisfactory state of affairs is in sight. When our own Institution is in being, the unpleasant duty of asking parents to allow their children to be sent between two and three hundred miles to receive treatment will disappear, and parents will be able to visit their children regularly, which will add to the happiness of the families concerned and greatly diminish the number who now refuse treatment for Non-Pulmonary Tuberculosis on account of the distances they will be from home.

We have maintained patients at the Royal National Orthopædic Hospital, Stanmore; Shropshire Surgical Hospital, Oswestry; Lord Mayor Treloar Cripples' Hospital, Alton, and at Hayling

Island; Royal Sea Bathing Hospital, Margate; and at the local hospitals (Royal Albert and South Devon and East Cornwall).

I desire to express thanks to all these Institutions for the reception of our cases.

Reference to Chart "E" will show how extensively this section of the work has grown—put shortly, there were 117 patients in residential institutions on the 1st January, 1925, against 213 on 31st December, 1928. This does not signify that the disease is growing, but rather that treatment is given where necessary, and the likelihood of the spread of the disease by contact with infected persons very greatly diminished.

*Training and Treatment Centres.* It is a source of regret to many Tuberculosis Officers that the Colony System has not been as successful as one would have wished. This is simply due to the fact that there is only a small percentage of tuberculous persons who possess the Colony temperament.

There is no doubt that the Employment and Training Sub-Committee of the After-Care Committee would find their task much lighter if more patients were temperamentally suited for the Colony.

We continue to maintain patients at the Papworth Village Settlement, Papworth Hall, Cambridge, and at the British Legion Village, Preston Hall, Aylesford.

*Efford Colony, Plymouth.* There are 23 patients undergoing training at this Colony, 14 of whom reside with their wives and families in bungalows there.

Several of the men are advanced cases of Tuberculosis and it is remarkable how well they keep and carry on with their work. I have no doubt whatever that several of them would have been dead if they had not gone to Efford, and I consider that their residence there has been the means of prolonging their lives.

There are 50 children also residing at the Colony and it is worthy of note that there has not been a single case of Pulmonary Tuberculosis among them during the past two years. It is very doubtful whether this result would have been achieved had the families been living under different conditions.

The bulk of the trainees are employed at carpentry, and considering that the greater number of them have never used tools before it is gratifying to see what they can accomplish. During the past year they have erected a large recreation hall, bungalows, revolving shelters, as well as making step-ladders, tables, chairs, meat-safes, etc.

The Board of Management have left no stone unturned to make the men as comfortable as possible, and they deserve every credit for the manner in which they have carried out their part and for their unselfishness in giving so much time for this worthy object.

I am sure that if the citizens of Plymouth realised the work done here they would patronise the Colony more by giving orders for household articles. This would lighten the task of the voluntary Board of Management and encourage the patients, and I therefore appeal for more work for Efford Colony.

*Contacts.* Every endeavour is made to secure the attendance at the Dispensaries of all contacts of notified cases of tuberculosis, and letters are sent immediately on the receipt of the primary notification.

It is pointed out to these persons that, failing their attendance here, they are advised to be examined by their family doctor, and I have received a large number of certificates from general practitioners during the year regarding the health of contact cases who have been written to from here.

It is most gratifying to know that the general public and the family doctors are co-operating so willingly with us in this most important branch of the work.

*Housing.* We still, and I expect ever will, face difficulties in this respect. The question is a huge one and although many of our patients have been fortunate enough to secure better housing accommodation, generally speaking, only the fringe of the problem has been touched.

The following short statement shows the present state of affairs of some fifty per cent of the patients attending this Department. They are not selected cases, but just taken as they appear on the register.

From this a true aspect of the position can be obtained, and it will be realised what an improvement is yet to be made, and as I stated last year, I am sure that the Local Authority is the only one capable to undertake the provision of houses for our patients, which would prove money well spent.

| *Numbers in Family.* | *Rooms occupied.* | | | | | | | | *Totals.* |
|---|---|---|---|---|---|---|---|---|---|
| | *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8 and over.* | |
| 1 .. | 13 | 2 | 2 | — | — | — | — | — | 17 |
| 2 .. | 14 | 35 | 15 | 4 | 3 | 2 | — | — | 73 |
| 3 .. | 9 | 51 | 36 | 12 | 8 | 4 | — | 2 | 122 |
| 4 .. | 7 | 28 | 30 | 25 | 30 | 5 | 2 | — | 127 |
| 5 . | 3 | 24 | 19 | 20 | 26 | 4 | 2 | 1 | 99 |
| 6 . | 1 | 8 | 12 | 23 | 21 | 3 | 1 | 1 | 70 |
| 7 .. | 1 | 8 | 6 | 6 | 22 | 1 | — | — | 44 |
| 8 .. | 1 | 2 | 5 | 7 | 10 | — | — | — | 25 |
| Over 8.. | — | 2 | 5 | 4 | 9 | 2 | — | 1 | 23 |
| TOTALS . | 49 | 160 | 130 | 101 | 129 | 21 | 5 | 5 | 600 |

The above Table is to be read as follows : There are 14 families each consisting of two persons who inhabit one room only for each family ; there are twenty-four families, each of five persons, and each of these families occupies two rooms only ; etc.

*Trades of Patients.* It is most interesting to know from what class of work our adult patients come, and I have, therefore, prepared the following statement which gives the actual occupations of these patients at the time they were notified to be suffering from Tuberculosis.

It would neither be just nor correct to point a finger at any particular trade and say, " There, that is the cause of Tuberculosis," because, in all probability, other conditions have prevailed to give the patient the disease which necessitated his or her attendance here.

I offer the table because of its extreme interest.

H.M. Dockyard—

| | |
|---|---|
| Tradesmen .. .. .. .. | 22 |
| Office .. .. .. .. .. | 2 |
| Labourers .. .. .. .. | 24 |

| | |
|---|---|
| Royal Navy— | |
| E.R.A.'s and Stokers | 22 |
| Others | 24 |
| Army | 49 |
| Mercantile Marine | 11 |
| Plymouth Corporation— | |
| Health Department | 1 |
| Tramways | 7 |
| Others | 7 |
| Post Office | 6 |
| Other than Government or Corporation Departments— | |
| Upholsterer | 3 |
| Bootmaker | 3 |
| Tailor | 7 |
| Wire worker | 1 |
| Stonework | 1 |
| Road work | 2 |
| Carpentry | 7 |
| Watchmaker | 2 |
| Rivetter | 1 |
| Shoeing-smith | 1 |
| Engineer | 3 |
| Teacher | 4 |
| Clerical | 20 |
| Housework | 203 |
| Domestics | 32 |
| Waiters and Waitresses | 4 |
| Shopkeepers and Managers | 5 |
| Shop Assistants— | |
| Dairy | 2 |
| Other foods | 3 |
| Others | 21 |
| Bakers | 5 |
| Stable boy | 1 |
| Insurance Agents | 6 |
| Nurses | 4 |
| Dressmakers | 4 |
| Casuals | 3 |
| Labouring | 26 |
| Unemployed | 40 |
| Miscellaneous | 165 |

*Dental Treatment.* During the year advantage has been taken of the payment made by certain Insurance Societies in aid of Dental Treatment to be afforded to their members. We have received £25 1*s*. 6*d* in this respect already, and begin the year with promises of £55 11*s*. 9*d*. further payment. All the money so received enables an extension in the number of patients who can be given dental treatment.

During the past year 7 patients received full upper and lower dentures, 15 partial dentures, and work in hand includes 18 full upper and lower dentures and 19 partial dentures. These, of course, exclude all those many patients who received gum treatment, scalings and minor extractions.

*X-Ray.* No one but those working in close contact with the Department can appreciate with what pleasure I can write " Our own X-ray Plant is an accomplished fact."

The Right Worshipful the Mayor, accompanied by the Chairman of the Public Health Committee, formally declared the X-ray Department open on the 19th December, 1928.

This is a real advance and a most important forward step in the progress of the Tuberculosis Department, and forms a valuable addition to our working tools as an aid to quicker results.

*Care and After-Care Committee.* The small band of voluntary workers forming this Committee deserves the best thanks of the Department and its patients. Their work is no sinecure. The best known of its Sub-Committees is, of course, the Assistance Sub-Committee, and no less than 106 patients received help from them during the past twelve months.

The Employment and Training Sub-Committee is continuing to experience great difficulty in obtaining employment for our patients. I can only again recommend such schemes as window-cleaning, attendants at motor parks, etc. With the good will of the general public these should prove a great success.

The Means and Propaganda Sub-Committee, so little before us, should receive special mention, as they have the hard task of finding money. Contributions, whist-drives and dances, concerts and flag-days are the methods employed in raising money, and I here appeal to all Citizens to assist this excellent cause.

*Evening Clinics.* The Thursday evening clinic is still held for those adult patients who are working and who would lose time if they had to attend an afternoon clinic. It is a great boon to them and is growing in popularity.

*Clinics in Districts.* Although I realise that the additional Sub-Clinic in Swilly, to serve that rapidly growing district, cannot be achieved this year, yet I feel that I should make mention of the desirability of it.

*Children.* It may not be generally known that we give our children patients a Christmas Party at Beaumont House. I make mention of it here as it is the only opportunity I have of expressing the deep thanks felt to the Mayor and Mayoress for coming to talk to the young patients, to the Chairman of the Public Health Committee, who never fails to spend a couple of hours with us, and also to those few members of the Public Health Committee who can also spare the time to visit us on that day.

This is the only opportunity, also, that I have of expressing our appreciation and thanks to those who contribute in money, kind and service to the success of that party.

*Co-operation.* I should like to place on record my appreciation for the happy relations that exist between this and the other Sub-Departments of the Public Health Service.

In conclusion, I express my thanks to the Tuberculosis Dispensary Staff for their unstinted labour and loyalty.

# APPENDIX V

## Report on Didworthy Sanatorium for the Year 1928.

By A. T. BETTINSON, M.R.C.S., L.R.C.P.

(*Resident Medical Officer.*)

*General.* Didworthy Sanatorium is situated on the southern edge of Dartmoor in the valley of the Avon, and is about 700-ft. above sea level.

It is well sheltered by surrounding hills and an east wind is almost unknown.

We had 70.16 inches of rain during the year and 198 wet days, as compared with 71.79 inches of rain and 208 wet days in 1927.

The driest period was in July, when we had 17 dry days and plenty of sunshine.

Although our rainfall may appear excessive compared to other parts of the country, the Institution, being built on a hillside, is not in any way damp ; with such excellent natural drainage all paths are dry within a few hours after a heavy downpour amounting to perhaps half an inch. In common with other parts of England we have not during the past two years had our usual ration of sunshine.

*Farm.* The grounds cover approximately 65 acres, but most of the land being part of Dartmoor is unsuitable for cultivation or cattle grazing.

The amount of cultivated and grazing land outside the Institution proper is about 15 acres.

This year the crops have been very good, and include hay, flat-pole cabbages, turnips and oats.

The meadow grazing land has improved greatly since we treated it with basic slag.

We keep six cows and about the same number of pigs, as well as two horses for work on the estate and to help when necessary to fetch goods—chiefly coal—from the station.

The amount of milk produced by our cows during the year was 3,628 gallons, which represents about a half the quantity needed by the Institution. All cows are tuberculin tested twice a year.

The pigs are used as food for the Sanatorium and the carcases are examined by me for evidence of Tuberculosis before they are passed to the kitchen. The pigs are fed chiefly on the waste products from the kitchens, and so cost us very little.

It is a matter of regret that we cannot supply by our own herd all the milk required for the Institution.

I feel that by buying extra root food and oil cake this could be done if we could have extra cowsheds.

I have also been advised by the veterinary surgeon that it would be better, in view of our lack of good pasturage, to have a herd of " Dexters " or " Kerry " cows. These breeds, he informs me, are very hardy and resistant to tuberculous infection and would do much better than " South Devons " on Dartmoor grazing.

The grounds and gardens within the Institution are steadily improving, and what was once a wilderness now begins to look like a park.

*Results of Treatment.* The following figures show the results of treatment ; the cases and results being grouped according to the memorandum issued by the Ministry of Health.

The total number of cases discharged from January 1st, 1928, to December 31st, 1928, was 111.

The total number admitted from January 1st, 1928, to December 31st, 1928, was 128.

DISCHARGED CASES—

1. *T.B. minus Group*—

| | | |
|---|---|---|
| Quiescent | 21 | = 28% |
| Very much improved | 50 | = 63% |
| Not improved | 7 | = 9% |
| | 78 | |

2. *T.B. plus Group 1*—

| | | |
|---|---|---|
| Quiescent .. .. .. | 5 | = 42% |
| Very much improved .. | 7 | = 58% |
| | 12 | |

3. *T.B. plus Group 2*—

| | | |
|---|---|---|
| Quiescent .. .. .. | 3 | = 15% |
| Very much improved .. | 11 | = 55% |
| Not improved .. .. | 6 | = 30% |
| | 20 | |

4. *T.B. plus Group 3*—

One case who was transferred to Swilly Hospital three days after admission.

Of the thirteen cases that did not show improvement five were cases of acute actively spreading Tuberculosis and were transferred within a few days after admission to institutions for advanced cases.

If the results of treatment with grouping are taken together we arrive at the following percentages :—

| | |
|---|---|
| Discharged quiescent .. .. .. | 26% |
| Discharged very much improved .. .. | 61% |
| Discharged or transferred not improved .. | 13% |

We had no deaths during 1928.

*Duration of Treatment.* The average length of stay this year was from 9–12 months for adults and 12 months or over for children.

One feels that, with the increasing length of periods of treatment, better results may be expected from sanatorium treatment. I speak of the early case and not the advanced one. Advanced cases need hospital treatment, and this cannot be given adequately in a sanatorium, no matter how efficiently it is managed.

Apart from the cases in which the disease runs an acute course and terminates fatally in a short period—and these cases need hospital treatment just as much as a case of Typhoid Fever does—

the early case of Pulmonary Tuberculosis has every chance of recovery and of being no danger to others afterwards, if he will be sensible and the world be sensible to him.

This must come through education and reform.

The patient must realise the elementary facts concerning his condition and how he can help his body in the combat against the disease. If he is sensible, hope of recovery is then justifiable. If he is a fool there is but one end.

The world can help him when he has recovered to avoid the conditions under which he contracted his trouble—for these conditions must logically be bad conditions, not only for him but others, whether they be bad housing or bad mode of life in feeding, work or pleasure.

In work one asks the question, " Is as much care taken or as much thought given to the human as to the man-made machine ? "

Again, does not much of the so-called pleasurable relaxation of the present day—taken in excess by most—make too great a strain on the individual.

One of the chief cries of the sanatorium patient is, " There is not enough life here, I can't stick it." Many who are feeling fit are anxiously waiting to have " their fling."

Is this a healthy outlook ?

*Beds Available.* With the completion of the new block for boys last October we now have an Institution of 90 beds—the largest institution under the City Public Health Department.

These beds are allocated as follows : Men and boys, 50 ; women and girls, 40. The average number of children is 32.

*Dental Treatment.* Sixty-nine patients received dental treatment during the year.

Periodic examinations of the patients' teeth are made.

*Pathological Section.* Sputum examinations in our laboratory this year numbered 803. In addition to this 194 other specimens were examined.

The sputum of each patient is examined once a month as routine and more often as indicated.

*Treatment.* " Occupational Therapy " has been the main form of special treatment this year.

Apart from the good that accrues to the patient, much useful work has been done, which includes the construction of a large modern rabbitry. Patients do much useful gardening and carpentry for the Institution.

This year we have been experimenting with rabbit keeping, starting with the Angora that was presented to us.

One patient especially interested in this work, and who hopes to make a living at it later, has (due to Dr. McDougall's kindness) been given a course of instruction under him at Preston Hall. This man will be in charge of the rabbitry and give instructions to other patients.

Next year we hope to get this industry going on a sound basis, with financial gain. Many patients who have small pensions are very keen on this type of work and hope to start on their own after discharge if it proves a sound financial undertaking here.

The Plymouth After-Car Committee have kindly granted us £50 for this work and we hope in the Spring to purchase some pedigree chinchillas, as this seems to be the most promising breed at present, the pelts fetching excellent prices and the supply not being equal to the demand.

Dr. McDougall says, " One must deal only in pedigree stock if it is to be a sound undertaking."

*Toy Factory.* We hope by April 1st to start a toy factory, using the old laundry as a machine room. I have a former patient fully certificated in handicraft work who will take on the duties of Instructor. This also, we hope, will in time not only train patients but also make a profit.

The Instructor will also teach the boys from twelve years of age and onwards elementary woodwork and other handicrafts. This will considerably relieve the difficulty of work for the school teacher, who has sometimes a class of 35 children of all ages to instruct. Again, one feels strongly that boys of twelve years and onwards need some sort of constructive work to do.

*Sanocrysin.* This year eleven patients have been treated here for Pulmonary Tuberculosis by the intravenous injection of sanocrysin.

I have used the method of giving small doses over long periods. An average course would be 0.1 grain weekly for twelve weeks, then miss four weeks before giving any more.

Several have had three such courses.

In no cases have any toxic symptoms due to the drug been shown.

I only use sanocrysin on early cases that do not seem to react to ordinary treatment.

The results are as follows :—

Six cases definitely improved.
Three cases showed no appreciable improvement.
Two cases left before completing treatment.

I consider that :—

(*a*) In many early cases that do not respond to ordinary treatment it is of definite benefit.
(*b*) That it should only be used in cases that do not respond to hygienic treatment.
(*c*) That given in small doses over prolonged periods it is entirely free from danger.
(*d*) Toxic symptoms should not be caused by its use, and if they are present it is due to an overdose.
(*e*) That unless it is indicated by other factors, it is not necessary to keep the patient in bed during the course of this treatment.

*X-ray Plant at Beaumont House.* One already feels the advantage of being able to have patients from Didworthy screened and filmed when necessary at the Dispensary. Friday has been allocated to Didworthy for X-ray examinations. This enables me to be present for the screening.

*School.* The number of children attending the Sanatorium Open-Air School averages 30.

The total number of attendances for 1928 was 14,875.

Although their ages vary from 5 to 15 years the teacher essays to keep them employed at lessons suitable to their grade. The older boys are given a great deal of individual help and kept up to "standard work," so as to enable them to take their places at ordinary or Open-Air School in Plymouth after discharge.

They are taught also raffia work and basket making.

As mentioned previously, we hope to give the older boys instruction in carpentry early in 1929.

During the winter months the children spend many happy hours in making floral and paper decorations to be used at Christmas. The younger children are occupied and very happy in kindergarten work.

*Children and Tuberculosis.* All the children are notified cases of Tuberculosis, diagnosed on symptoms, physical and X-ray examination.

Many of these children are living with people suffering from Pulmonary Tuberculosis.

In most cases a Wassermann reaction is done before notification. Although many are dubious about intra-thoracic Tuberculosis in children, with the following, which is a typical picture, what other diagnosis can be made and what other treatment than sanatorium (preferably with an open-air school attached) can be given?

A child, always unwell, feverish at night, lassitude very marked, some dyspnœa, cough not a marked symptom and rarely any sputum, anæmia is also marked, and as mentioned previously, known exposure to tuberculous infection.

Physical examination shows as follows :—

Superficial veins of chest very prominent, expansion poor, chest poorly covered and flat.

Percussion note markedly impaired in one or both intercapular spaces, and in some cases para-sternal dullness. Very harsh breath sounds over upper part of one or both lungs (due to lung collapse) and often fine advenuous sounds around the roots of lungs and sometimes in sub-mammary region.

X-ray examination showing the hilum enlarged on one or both sides and often woolly, irregular, breaking down glands.

Von Pirquet Reaction positive, Wassermann negative.

No evidence of other diseases, e.g., Adenoids.

When children such as this come to Sanatorium for treatment one invariably finds some evening rise of temperature and pulse rate increased.

The result of sanatorium treatment in these cases is wonderful and one feels justified, after twelve months here, in discharging these children as quiescent, and they do keep fit afterwards.

The old saying of "Let them run wild" is entirely wrong as long as the child has lassitude and an evening temperature (even to 99°). It has, in my opinion, still active disease and needs, not exercise, but rest.

The future will reap the fruits of the treatment of these children.

*Diet.* A good and liberal diet, with variety, well-cooked and well served, is sound therapeutics in the treatment of Pulmonary Tuberculosis.

Napoleon said, "An army marches on its stomach." I do not say that dietary can cure this disease, but it is an important factor in the treatment of it. We do pride ourselves on our diets at Didworthy, and much time and thought is given to it by the matron and myself.

Appended is a diet table showing the diet sheets for a fortnight taken at random.

*New Block.* In October this year the new block to accommodate 20 boys was opened.

It is a fine building, with a 12-foot verandah, and contrasts markedly with the corrugated-iron shelters that existed on the site before.

One already feels the benefit in every way of having the boys separate from the men patients.

This year has also seen the erection of a new recreation room for the men, which is a great asset. It will be remembered that the recreation hut that existed before collapsed in the snow on Boxing Day, 1927.

In conclusion I should like to express my appreciation of the help and support given to me by the Committee, by the Matron and all members of the staff.

# DIDWORTHY SANATORIUM DIETARY TABLE.

| | *SUNDAY, October 28th.* | *MONDAY, October 29th.* | *TUESDAY, October 30th.* | *WEDNESDAY, October 31st.* | *THURSDAY. November 1st.* | *FRIDAY, November 2nd.* | *SATURDAY, November 3rd.* |
|---|---|---|---|---|---|---|---|
| BREAKFAST ... 8-30 a.m. | Porridge.<br>Milk & Sugar.<br>Fried Bread.<br>Eggs & Bacon.<br>Marmalade.<br>Bread & Butter.<br>Tea. | Porridge.<br>Milk & Sugar.<br>Fried Bread and Bacon.<br>Tomatoes.<br>Marmalade. Tea.<br>Bread & Butter. | Porridge.<br>Milk & Sugar.<br>Cold Ham.<br>Marmalade.<br>Bread & Butter.<br>Tea. | Porridge.<br>Milk & Sugar.<br>Fish Cakes.<br>Marmalade.<br>Bread & Butter.<br>Tea. | Porridge.<br>Milk & Sugar.<br>Fried Bread and Bacon.<br>Marmalade.<br>Bread & Butter.<br>Tea. | Porridge.<br>Milk & Sugar.<br>Fried Bread and Bacon.<br>Marmalade.<br>Bread & Butter.<br>Tea. | Porridge.<br>Milk & Sugar.<br>Cold Ham.<br>Marmalade.<br>Bread & Butter.<br>Tea. |
| DINNER ... ... 1-0 p.m. | Roast Pork.<br>Apple Sauce.<br>Potatoes.<br>Cabbage.<br>Holderness Pudding.<br>Sauce.<br>Bread. Milk. | Boiled Beef.<br>Potatoes.<br>Carrots.<br>Jam Tarts.<br>Bread.<br>Milk. | Roast Beef.<br>Potatoes.<br>Savoys.<br>Stewed Fruit & Custard.<br>Bread.<br>Milk. | Beef & Kidney Pudding.<br>Potatoes.<br>Peas.<br>Milk Pudding.<br>Bread.<br>Milk. | Roast Mutton.<br>Mint Sauce.<br>Potatoes.<br>Cabbage.<br>Suet Rolls.<br>Syrup.<br>Bread.<br>Milk. | Stewed Rabbit.<br>Suet Dumplings.<br>Potatoes.<br>Parsnips.<br>Roast Apples.<br>Custard.<br>Bread.<br>Milk. | Roast Beef.<br>Potatoes.<br>Savoys.<br>Steamed Apple Pudding.<br>Bread.<br>Milk. |
| TEA ... ... ... 4-0 p.m. | Tea.<br>Bread & Butter.<br>Cake.<br>Fruit. | Tea.<br>Bread & Butter.<br>Jam. | Tea.<br>Bread & Butter.<br>Fruit.<br>Dripping. | Tea.<br>Bread & Butter.<br>Jam. | Tea.<br>Bread & Butter.<br>Scones.<br>Dripping. | Tea.<br>Bread & Butter.<br>Jam. | Tea.<br>Bread & Butter.<br>Jam. |
| SUPPER ... 6-30 p.m. | Cold Ham.<br>Celery.<br>Milk Pudding.<br>Cheese.<br>Bread & Butter.<br>Milk. | Cold Meat.<br>Pickles.<br>Milk Pudding.<br>Cheese.<br>Bread & Butter.<br>Milk. | Fried Fish.<br>Potatoes.<br>Milk Pudding.<br>Cheese.<br>Bread & Butter.<br>Milk. | Soup.<br>Stewed Tripe and Onions.<br>Fried Liver and Bacon.<br>Potatoes.<br>Cheese. Milk.<br>Bread & Butter. | Cottage Pies.<br>Milk Pudding.<br>Cheese.<br>Bread & Butter.<br>Milk. | Baked Fish, Stuffed.<br>Brown Gravy.<br>Potatoes.<br>Milk Pudding.<br>Cheese.<br>Bread & Butter.<br>Milk. | Baked Meat.<br>Roll.<br>Gravy.<br>Potatoes.<br>Milk Pudding.<br>Cheese.<br>Bread & Butter.<br>Milk. |
| CHILDREN'S SEPARATE EVENING MEAL ... ... 5-30 p.m. | Bananas and Custard.<br>Cake.<br>Bread & Butter.<br>Fruit.<br>Milk. | Milk Pudding.<br>Jam & Cream.<br>Bread & Butter.<br>Fruit.<br>Milk. | Fried Fish.<br>Potatoes.<br>Milk Pudding.<br>Fruit.<br>Milk. | Soup.<br>Jam & Cream.<br>Bread & Butter.<br>Fruit.<br>Milk. | Milk Pudding.<br>Jam & Cream.<br>Bread & Butter.<br>Fruit.<br>Milk. | Baked Fish, etc.<br>Potatoes.<br>Milk Pudding.<br>Fruit.<br>Bread & Butter.<br>Milk. | Milk Pudding.<br>Jam & Cream.<br>Fruit.<br>Bread & Butter.<br>Milk. |

11 a.m. Milk, Cream, Bovril; or, Egg and Milk, as prescribed.

| | *SUNDAY,*<br>*November 4th.* | *MONDAY,*<br>*November 5th.* | *TUESDAY,*<br>*November 6th.* | *WEDNESDAY,*<br>*November 7th.* | *THURSDAY,*<br>*November 8th.* | *FRIDAY.*<br>*November 9th.* | *SATURDAY.*<br>*November 10th.* |
|---|---|---|---|---|---|---|---|
| BREAKFAST ... 8-30 a.m. | Porridge.<br>Milk & Sugar.<br>Fried Eggs, Bacon & Bread.<br>Marmalade.<br>Bread & Butter.<br>Tea. | Porridge.<br>Milk & Sugar.<br>Fried Bread and Bacon.<br>Marmalade.<br>Bread & Butter.<br>Tea. | Porridge.<br>Milk & Sugar.<br>Cold Ham.<br>Marmalade.<br>Bread & Butter.<br>Tea. | Porridge.<br>Milk & Sugar.<br>Fried Bread and Bacon.<br>Marmalade.<br>Bread & Butter.<br>Tea. | Porridge.<br>Milk & Sugar.<br>Smoked Haddock.<br>Marmalade.<br>Bread & Butter.<br>Tea. | Porridge.<br>Milk & Sugar.<br>Cold Ham.<br>Marmalade.<br>Bread & Butter.<br>Tea. | Porridge.<br>Milk & Sugar.<br>Fried Bread and Bacon<br>Marmalade.<br>Bread & Butter.<br>Tea. |
| DINNER ... ... 1-0 p.m. | Roast Chicken.<br>Bread Sauce.<br>Potatoes.<br>Savoys.<br>Ginger Pudding.<br>Sauce.<br>Bread.<br>Milk. | Boiled Beef.<br>Potatoes.<br>Turnip.<br>Jam Turnover<br>Bread.<br>Milk. | Roast Mutton.<br>Mint Sauce.<br>Potatoes.<br>Cabbage.<br>Suet Rolls.<br>Syrup.<br>Bread.<br>Milk. | Beef & Kidney Pies.<br>Potatoes.<br>Parsnips.<br>Milk Pudding.<br>Bread.<br>Milk. | Roast Beef.<br>Potatoes.<br>Cabbage.<br>Apple Tarts.<br>Bread.<br>Milk. | Stewed Beef and Kidney.<br>Potatoes.<br>Peas.<br>Baked Batter Pudding.<br>Jam.<br>Bread. Milk. | Roast Mutton.<br>Mint Sauce.<br>Potatoes.<br>Savoys.<br>Milk Pudding.<br>Bread.<br>Milk. |
| TEA ... ... 4-0 p.m. | Tea.<br>Cake.<br>Bread & Butter.<br>Fruit. | Tea.<br>Bread & Butter.<br>Jam. | Tea.<br>Bread & Butter.<br>Fruit.<br>Dripping. | Tea.<br>Bread & Butter.<br>Jam. | Tea.<br>Bread & Butter.<br>Scones.<br>Dripping. | Tea.<br>Bread & Butter.<br>Jam. | Tea.<br>Bread & Butter.<br>Jam. |
| SUPPER ... ... 6-30 p.m. | Corned Beef.<br>Pickles.<br>Milk Pudding.<br>Cheese.<br>Bread & Butter.<br>Milk. | Cold Beef.<br>Beetroot.<br>Milk Pudding.<br>Cheese.<br>Bread & Butter.<br>Milk. | Fried Fish.<br>Milk Pudding.<br>Potatoes.<br>Cheese.<br>Bread & Butter.<br>Milk. | Soup.<br>Cold Beef.<br>Chipped Potatoes.<br>Cheese.<br>Bread & Butter.<br>Milk. | Meat Roll.<br>Gravy.<br>Potatoes.<br>Milk Pudding.<br>Cheese.<br>Bread & Butter.<br>Milk. | Fried Fish.<br>Potatoes.<br>Milk Pudding.<br>Cheese.<br>Milk.<br>Bread & Butter. | Hashed Meat.<br>Gravy.<br>Potatoes.<br>Soup.<br>Cheese.<br>Bread & Butter.<br>Milk. |
| CHILDREN'S SEPARATE EVENING MEAL ... ... 5-30 p.m. | Bananas and Custard.<br>Cake.<br>Fruit.<br>Milk.<br>Bread & Butter. | Milk Pudding.<br>Jam & Cream.<br>Bread & Butter.<br>Fruit.<br>Milk. | Fried Fish.<br>Potatoes.<br>Milk Pudding.<br>Fruit.<br>Bread & Butter.<br>Milk. | Soup.<br>Jam & Cream.<br>Bread & Butter.<br>Fruit.<br>Milk. | Milk Pudding.<br>Jam & Cream.<br>Bread & Butter.<br>Fruit.<br>Milk. | Fried Fish.<br>Potatoes.<br>Milk Pudding.<br>Fruit.<br>Bread & Butter.<br>Milk. | Soup.<br>Jam & Cream.<br>Bread & Butter.<br>Milk.<br>Fruit. |

## APPENDIX VI

## Udal Torre Sanatorium. Report for the Year 1928.

By R. DAVIS, M.C.P. AND S. (Sask.)

*(Resident Medical Officer.)*

During the past year the usual standard of work has been maintained at Udal Torre Sanatorium. The improved condition of the building has been retained and Ward I has been redecorated.

During the winter months fires have been laid in all the Wards in the afternoons. This has added materially to the comforts of the patients.

The improvements made in the grounds are evident—many overgrown shrubs have been trimmed back and hedges cut. The lawns have been rolled and are now in a condition in which the grass can be cut with a lawn mower. Rose bushes have been transferred from hidden corners into the sunlight and trained over archways along the paths. Two small water-lily ponds have been built and supplied with gold-fish.

The patients have taken more interest than ever in their huts. Each patient has sized and stained the walls and ceiling of his hut and polished the floor, painted his bedstead, locker and chair, and constructed a drop-leaf writing table, which is attached to the wall. Each also stained the exterior of his hut. Many repairs of a minor nature have been done by the patients, such as electric repairs and the replacing of broken window-panes, etc.

Great interest is taken in leather work. A class of six patients has received weekly instruction in the art of making leather bags, cases, etc. Not only is this a pleasant occupation, but a source of income for the patients—a very important point. Many of the patients who have left the Sanatorium are making a small income at home by selling their leather work. Each patient who has been instructed in leather work at the Sanatorium is allowed to take a set of tools home with him providing he pays the cost of such tools.

Every sanatorium, no matter where located, should have in its grounds a workshop where patients can be instructed in a useful and agreeable occupation under healthy conditions.

During the past year Calcium has been used in treating a few of the patients, but no evident benefit has followed, except that observed in a mild case of lupus. But even here the results are not complete. Yet giving calcium by mouth is not a satisfactory method of administration.

A polyvalent (stock) vaccine is also being used where the sputum shows a mixed infection. Although it is too early to state the effects of the treatment, indications point to good results following its use. Sanocrysin is still being used.

There are 39 beds in the Institution. The average occupation of beds for the past year is 37.9 or nearly 38. There were 88 patients admitted during the year. This indicates that patients are remaining longer in the Institution, the benefit of which is evident. The number of discharges for the year is 73. The number of deaths for the year is 18.

Patients receive whatever dental treatment is required. A throat specialist also attends patients suffering from Tuberculous Laryngitis. Daily papers, magazines and books are supplied to the patients.

Concert parties visit the Institution and religious services are held each Sunday evening. The Canteen still continues to flourish and the profits supply prizes for the various games and tournaments held by the patients.

The number of hours sunshine for the year as shown by the sun gauge is 1,606, an average of 4.6 hours per day.

The garden has yielded a greater supply of summer and winter vegetables than in any previous year. Fresh vegetables are an important item in the diet of patients suffering from Pulmonary Tuberculosis. Meat is being used to a less extent than formerly in the more up-to-date sanatorium ; eggs, fish and poultry taking its place.

Thanks are due to the Matron, Nursing staff, the Kitchen staff and the Orderlies for the efficient way in which they have carried out their duties.

## APPENDIX VII

### Venereal Diseases Treatment Centre.

By G. D. KETTLEWELL, M.R.C.S., L.R.C.P.

The V.D. Clinic was opened in February, 1919, and with the close of 1928 practically completes ten years' service. During that time 9,336 patients have been examined, with an average attendance of about 11,000 per annum, the highest number, 16,249, for 1928. It must not be concluded that there has been an increase in the incidence of V.D. during this year, the larger number of attendances were entirely due to the following cause: It has always been recognised that a large number of the attendances were due to the treatment of Gonorrhœa, and it has been felt for some considerable time that it was not really possible for one attendant to devote the time to the large number of Gonorrhœa patients, and also give the necessary attention to others. After consultation with the Medical Officer of Health, it was decided, at the latter end of 1927, to have two attendants; one to assist the M.O. in dealing with New Cases, Injections, etc., and the other to devote practically the whole of his time, during clinic hours, to the treatment of Gonorrhœa cases. That the new system has worked satisfactorily is shown by the increase in " Gonorrhœa " attendances. It stands to reason that patients will not attend well unless some consideration is shown them. They naturally expect, if they come for treatment, that they will receive attention, and not be kept " hanging about." Judging by the more regular attendance and completion of treatment of the Gonorrhœa patients during 1928, it is perfectly evident that the employment of a second attendant has more than justified itself.

*Syphilis.* The total number of cases of this disease was 214. Of this number 39 (29 males and 10 females) had recently contracted the disease, and were in the acute, or contagious, stage. Thirteen of the male and five of the female had been infected in Plymouth, and twenty-one patients had been previously treated in other centres. Five of the Plymouth male patients were infected in a period of about one month, and it was not until a woman in an acutely contagious condition attended for treatment that the small epidemic ceased. As far as possible women in a contagious condition are advised to enter the hospital, but as the first course of treatment takes about three months, the patient finds confinement in the hospital very irksome, and hankers after her life of pleasure, with the result that she leaves the hospital in a temporary non-infectious condition ; she may, perhaps, attend once or twice for treatment as an out-patient, with subsequent relapse and restarting of the vicious circle. These remarks apply almost exclusively to the prostitute ; the vast majority of patients who contract Syphilis are only too anxious to be cured, and attend very regularly for treatment and subsequent observation for several years. Although there has been a slight increase in the number of infectious cases in 1928 (39 cases), the figures compare very favourably with 1920, when the number was 235.

The number of chronic cases of Syphilis (over two years duration) was 114 (64 males and 50 females). The treatment of these patients is quite as important as that for acute or infectious cases, as the after effects of Syphilis, especially when not adequately treated, are so serious as very often completely to incapacitate the patient from earning a living. In the majority of cases of this class it has been possible, with treatment, to render the patient a wage earner after months of incapacity ; but for treatment at the Clinic, many of these patients would have become a permanent charge to the rates. In some cases, unfortunately, the disease has been untreated for such a long period, that the patients have developed a form of nervous disease or other trouble which entirely invalids them for the rest of their lives. One very interesting point in connection with these chronic cases was that 100 of them were married, and, in the majority of cases, might be responsible for the births of children who might suffer from the disease in an hereditary form. A considerable number were *in fact* known to be parents of syphilitic children.

*Congenital Syphilis.* Fifty-nine cases of Congenital Syphilis were seen during the year :—

| | |
|---|---|
| From 1 to 5 years .. .. | 5 |
| ,, 5 to 14 ,, .. .. | 33 |
| ,, 14 to 20 ,, .. .. | 1 |
| 20 years and over .. .. | 20 |

Practically all these patients are under treatment ; the majority were suffering from Keratitis, Choroiditis (eye trouble), a small number from deafness (generally incurable), and a few from bone trouble. Unfortunately, it has not been possible to carry out the voluntary examination of school children as has been done during past years.

*Gonorrhœa.* There has been a very slight decrease in the number of cases, but by taking an average for the last five years, the decrease is infinitesimal. As has been pointed out in previous reports, the chief difficulties in stamping out the disease are due to two main causes :—

(*a*) That many women are quite unaware that they are suffering from disease, and, as a result, do not attempt to get any treatment.

(*b*) That many men, who seek advice, treat the matter far too lightly, and are satisfied with the cessation of discharge, which does not in any way prove they are cured.

In the case of women, it is generally not until they have been accused of communicating disease that they seek advice, and even then it is extremely difficult to convince them that disease is present. In most cases there are practically no symptoms, and the patient cannot see the importance of attending until she is cured, and " cured " in the case of a woman means many months of continuous treatment. It is evident that a patient who has no symptoms, and feels quite well, soon tires of a treatment which is apparently, in her own mind, quite unnecessary.

In the case of a man the difficulty is not so great ; he has self-evident symptoms of disease ; he is instructed in the method of treatment at the Clinic, and attends once or twice daily as an out-patient, and is told to report to the Medical Officer once a week for examination. The treatment of the disease during the first few weeks rests very largely with the patient himself, and after learning the method, he thinks that he can complete the treatment at home, and that cessation of discharge means cure ; or, again, he may be persuaded by some " kind friend " that treatment at the Clinic is quite unnecessary, and is advised to take some " infallible remedy " which will cure him of all his " ills." It may be pointed out that there is no known medicine that can cure the disease ; there are some that may cause cessation of symptoms, but certainly not cure. If, when the discharge has cleared up, the patient would continue the routine treatment, it would be possible to discharge more of the patients completely cured. Unfortunately some patients do not even complete the first part of the treatment ; others attend intermittently and cease attendance before a cure has been pronounced. Every patient who is found to be suffering from Gonorrhœa is given an individual " lecturette " upon the serious nature of the disease, and the importance of regular attendance, that treatment will be necessary for roughly three months. Unfortunately, even by concentrating to a great extent upon Gonorrhœa during the past year (see opening paragraph), the results of treatment have not been as satisfactory as one could wish. It can only be said that there has been a rather larger proportion of cures than in previous years.

## APPENDIX VIII

## The School Medical Service of Plymouth.

BY

A. T. NANKIVELL, M.D., M.R.C.P.

AND

J. W. E. COLE, M.A., M.B., D.P.H.

| | | |
|---|---|---|
| No. of scholars on roll in 1928 | .. | 28,224 |
| Average attendance in 1928 | .. | 25,200 |

**Co-ordination.** *Infant and Child Welfare Department.* Cards of children who have attended this department are forwarded to the School Medical Officer when the children reach school age. Entries of importance are transferred to their school medical cards. Children from these Centres requiring dental or orthopædic treatment are referred to the School Clinics for such.

*Tuberculosis and Venereal Department.* Reports of all school children attending these departments are sent to the School Medical Officer, and effect is given to recommendations for treatment in the School Clinics.

Young persons over school age who are on the books of the Juvenile Labour Bureau received dental treatment at the School Clinics when recommended by the Bureau.

**School Hygiene.** No school has been reconstructed during the year, but minor improvements are constantly being effected.

Sir George Newman in his latest report reminds us that cleanliness in the home and school still occupies the first place in all measures to maintain health and prevent disease, For cleaning the floors of the Authority's schools reliance is now placed solely upon a patent dust-layer. The scrubbing brush has been abolished except for rooms used as cooking centres.

*Heating.* Gas fires have largely replaced coal grates. Where the gas fire is of adequate size for the room this method is satisfactory. It is most important that all gas heaters and ovens should be fitted with chimneys to the open.

*Meals.* During the last two or three years considerable advance has been made in the provision of accommodation for those who eat their mid-day meal in school. These children are met with chiefly in the Secondary Schools and Roman Catholic Schools, which draw their scholars from wide areas.

In most of these the dining-room is now a special apartment provided with tables, chairs, clean cloths, crockery, cutlery, glass, and even flowers. Adjoining is a kitchen, where meals can be obtained for a few pence, or brought food can be heated and hot drinks made. There is the necessary staff and a teacher supervises. These arrangements vary from none at all to what may be described as first-class.

**Medical Inspection.**

Regular inspection is the basis of the school medical work. The three groups—entrants, 7-year olds, and 12-year olds—are required by the Board of Education to be examined annually. This means each child is examined three times during its school life. Out of 30,000 children there are a few who escape this examination, but on the other hand a large number outside these groups come to the Clinics of their own accord for examination. These are referred to in the Statistical Tables as "specials." A further group known as "exceptional children" includes crippling, blindness, consumption and other defects likely to interfere with the child's education in an ordinary school. A list of such is kept for every school and is corrected and brought up to date by the Medical Officer on his routine inspections. Appropriate steps are taken to deal with each child on the list.

The arrangements for carrying out routine examinations continue as before. Enquiries are made as to the number to be examined in each school, and the hours for the visits of a Medical Officer to each school are fixed ten days or more in advance in order that the Head Teacher may have time to inform the parents and make the important preliminary arrangements upon which the smoothness and success of the medical examination so much depends.

In two schools, viz., St. Andrew's and Grey Coat, no room can be made available for the inspection ; therefore, with the consent of the Board of Education, the children from these schools attend the Clinic for the purpose.

**Findings of Medical Inspections.**

The numbers of Ringworm of the scalp which have been decreasing for years have this year dropped more markedly than ever. Only 50 cases were discovered. Sixty-five specimens of hair were examined by the City Pathologist.

The number of cases of scabies recorded has, however, risen from the 60 of 1927 to 161—reminiscent of war-time figures.

The figures under other headings call for no special comment.

It is sometimes asked why the number of ailments found at medical inspection do not diminish. How far can we prevent (*a*) Uncleanliness ; (*b*) Skin ; (*c*) Minor Ailments ? (*a*) and (*b*) would practically disappear, and (*c*) would diminish if cleanliness in theory and practice were, especially in infant schools, as much a part of the curriculum as the three R's. Is this not practicable ?

(*d*) Tonsils and Adenoids. At present we only guess at and discuss the causes of these conditions. The prevention and treatment of rickets, the teaching and practice of nasal hygiene (nose blowing), proper feeding, etc., all play a part in prevention.

In the meantime school medical officers may point out to parents the excellent results following complete removal of the diseased tissue, and the permanent evils which result from its retention. The operation is also preventive of many of the conditions coming under the heading of ear disease.

(*e*) Tuberculosis. We believe that if cleanliness were part of the school curriculum, and if, as pointed out in my last report, all schools were " on open-air lines," the numbers under this heading could be reduced.

(*f*) Defective Vision. Prevention of the common infectious diseases would probably result in diminished numbers of those suffering from defective vision. Bad light handicaps eyes just as rough ground handicaps feet. As eyes are one of the most important organs for the process of acquiring knowledge, it follows that education is handicapped when the eyes are working at a disadvantage. It is doubtful if bad light of itself will cause permanent defect in a healthy eye.

(*g*) Ear Disease and Hearing. The numbers of children suffering from the above will diminish if the fevers, especially Scarlet Fever and Measles can be eliminated.

The chronicity of these troubles and the chances of permanent damage can be reduced by the employment of the services of a specialist.

(*h*) Dental Defect. As in the cases of Tonsils and Adenoids, the ultimate cause of dental caries is still a matter for discussion.

Frequent inspection by a dentist, followed by immediate treatment, with advice as to future care, will minimize the caries, prevent sepsis, and banish the ill-health and discomfort due to these defects.

(*i*) Crippling Defects. The prevention of these are connected with the prevention, early discovery, and treatment of tuberculous disease. The damage done by the disease known as anterior poliomyelitis is permanent, but if the sufferer be kept under skilled observation and treatment during his growing period, the effects are reduced to a minimum.

**Infectious Diseases.**

Although the actual numbers of notifiable infectious diseases show no marked increase compared with previous years, yet the work of schools has been interfered with, and the school medical staff have had to devote considerably more than the usual amount of time to active measures for coping with outbreaks.

*Measles.* It appeared that in 16 infant schools for a total of 31 weeks an attendance of less than 60 per cent was reasonably due to the prevalence of this illness. The Board of Education certificate to this effect was therefore given in each instance.

*Smallpox* occurred in Plymouth on June 21st, and the first cases in school children were discovered on July 28th in a family of three. The children had been ill three weeks previously, the parent being under the impression that they had Chicken-pox. They had returned to school before the real nature of the illness was known, and spread the infection among other school children. All cases as they were discovered were removed to the Smallpox Hospital. Under the direction of the Medical Officer of Health all contacts were visited and examined daily by Nurses or Medical Officers. Vaccination was advocated and large numbers were thus immunised. In addition to visiting of contacts, house-to-house visits were made in affected areas of the City, and some hidden cases were thus brought to light.

As soon as the schools opened, every individual child in each school where a case of Smallpox had occurred was examined daily for a fortnight, and all absentees visited and examined.

In carrying out these precautions School Medical Officers and Nurses made 23,109 examinations in schools and homes. It was a big effort and met some discouraging criticism, but in dealing with such an outbreak anything short of a crushing blow is useless. The outbreak was stamped out.

*Diphtheria.* This disease has not, on the whole, been unusually prevalent, but the occurrence of 27 cases at Hyde Park School (1400 children) during the last four months of the year gave rise to public comment, especially as at the beginning of the outbreak three deaths occurred. The outbreak has had one good result. It has drawn public attention to the fact stressed in my last report that Diphtheria is preventible by modern methods of inoculation. There has been a great increase in the number of parents taking children to be thus immunised. Even so, the numbers immunised annually must increase tenfold before Diphtheria disappears from Plymouth.

The routine precautions on the occurrence of Diphtheria are (1) exclusion of the sick child—this generally means sending to the Isolation Hospital ; (2) exclusion of all contacts ; (3) taking of swabs from nose and throat of all contacts ; (4) dealing with positive cases so discovered ; (5) disinfection. All these precautions were carried out at Hyde Park, with the addition of (1) repeated disinfection of school premises, including furniture ; (2) taking of swabs from all the children in the classes where a case occurred ; (3) swabbing of all absentees from any cause before re-admitting them to the school.

A School Nurse visited the school daily and examined 2096 throats and took 1184 swabs.

A large number of children were kept home from the school because of the rumour that the drains were defective. The drains are not defective. The type of water closet (trough) has not proved to be the best possible type for schools, and should therefore be changed, but whatever its drawbacks it neither originates nor spreads Diphtheria.

During the latter part of the year there was a well-marked outbreak of Adenitis, or glandular fever. The sufferers were excluded from school for a week or fortnight.

**Following-up.** The following-up of children who require treatment was carried out by the Nurses on the same lines as heretofore. It is found that personal visits by a Nurse are far more likely to result in treatment being obtained than the sending of a formal note.

During the year 9199 following-up visits to homes have been made by School Nurses. This figure does not include the visits in connection with the Smallpox epidemic.

The Nurses have, as in former years, carried on the Clinic work and routine examination of children in the schools as to personal cleanliness; figures are given in Table 21. When they can be spared, Nurses accompany the Medical Officers in their routine school inspections. All swabbing of contacts of school children suffering from Diphtheria is carried out by the School Nurses, chiefly by visits to the homes. Three hundred and ninety visits in this connection were made during the year, and 1099 swabs were taken. This figure does not include the swabs taken at Hyde Park School.

**Medical Treatment.** (*a*) *Minor Ailments.* The treatment of these means for the most part the cleaning and application of antiseptic dressings to wounds and sores. Simple as this is, it is on a large scale, and requires the installation of proper appliances, such as water heaters and sterilizers. The former have now been obtained for all the Clinics, and an electric sterilizer is in use at Princess Square. The other Clinics improvise with a bowl and gas ring.

The three Clinics are an immense boon to parents and to children, who attended for advice on all kinds of physical and mental ills ; 57,737 attendances were made during the year. Although time at the Clinics counts for registration purposes, there is, of course, an actual loss of educational time. It is difficult to see how this can be avoided, except by the establishment in every school of a properly fitted Clinic room visited by a Nurse daily. This would need a very substantial increase of the medical staff, Clinic accommodation, and furniture.

(*b*) *Tonsils and Adenoids.* The Authority's arrangements with the Royal Albert Hospital and the Central Hospital continue to work satisfactorily. The year shows a marked increase in the number of operations performed.

(*c*) *Tuberculosis.* Sufferers are dealt with either privately or by the Tuberculosis Department.

(*d*) *Skin Diseases.* Those classifiable as minor ailments are treated at the Clinics. For another year Scabies has had to be treated by the very unsatisfactory home methods. It is hoped that the long-needed bath will be installed during 1929.

(*e*) and (*f*). The Authority's arrangements for treatment of external eye disease and defective vision continue to work well.

(*g*) *Ear Disease and Hearing.* The next advance in the School Medical Service should be the employment of a Specialist and the establishment of a Clinic for dealing with these defects.

(*h*) *Dental Defects.* The arrangements are as last year. The reports of the dentists are as follows :—

MR. WILLIAMS.

" The standard of the teeth in children whose schools have a periodical examination shows a great improvement, the average mouth being far healthier and cleaner.

" Special attention is given to all the children under six years of age attending school, for it is during this period that extensive damage occurs. From the age of two years all the temporary teeth are in place, and if care is not given them, by the time the child reaches the age of six the condition is so bad that the mouth will be damaged for ever.

" At the Special Schools, where the children are made to clean their teeth every day with a toothbrush under the supervision of the nurse, on inspection the children are found to require very little treatment as compared with those attending ordinary schools. All children in Infant Schools should be made to clean their mouths every day as routine work under the supervision of their respective teachers ; this would only occupy about ten minutes of their school time, but would instil into them the necessity of using the toothbrush, and the habit once obtained would never be lost.

" At present only about one-third of the schools in Plymouth area have a routine inspection ; this leaves about two-thirds of the children neglected, and these use the Clinic as casuals when in trouble, and their trouble is usually great, needing multiple extraction, the damage being so extensive that any conservative work is impossible. With the advent of another Dental Surgeon much improvement will be effected, and the number of casuals attending the Clinic for gas extractions will be reduced."

Mr. Forrest.

" The dental treatment and inspection of school children was continued without interruption throughout the year ; parents being assembled at inspection and demonstration given, also defects of teeth pointed out, and general instructions issued *re* care of teeth ; appointments being made for treatment at Council's Clinic. The dental nurse calls on parents unable to attend inspection, and in the homes gives similar instructions. The parents, as a whole, take a keen and intelligent interest in our work.

" Re-examination and, when necessary, re-treatment of children dealt with in former years, is consistently and systematically carried out. The few years this practice has been followed has served to demonstrate to the children concerned the advantage of treatment given on former occasions, but data available do not yet allow a qualitative and quantitative statement to be made.

" I am indebted to Head Teachers for their splendid support of our work, and the progress we have so far attained is largely due to their influence and co-operation.

" At present schools are only inspected once yearly. However, it is our aim to attempt two examinations per year. This has not been found practicable so far.

"There are a certain number of parents who will not allow dental treatment for their children, believing it to be quite unnecessary. Of course, their surroundings have a lot to do with their attitude. Parents who leave poorer districts for the new houses invariably accept dental treatment. This is a feature I have noted with some interest.

"The large number of children entering school whose dental condition requires treatment, engenders the hope that means will be found to check dental caries started at an earlier age than is now possible through the medium of the schools. The channel of approach for this purpose which offers prospects of success is the Maternity and Child Welfare scheme.

"Little is known of causation and prevention of dental decay. There is felt a need for an authoritative and accepted pronouncement on this subject. Certain investigations point out that the feeding of infants, also the diet of the mother during pregnancy, are factors in control of dental disease."

(*i*) *Crippling Defects and Orthopædics.* All crippled children who can be benefitted by treatment are either sent away to residential schools, or if suitable for ordinary or open-air schools, are sent to these, and attend at the Orthopædic Clinic for specialist treatment as required.

Mr. Kennedy has conducted 360 examinations or re-examinations at the Clinics.

6552 attendances have been made for the carrying out of the treatment prescribed by Mr. Kennedy or the School Medical Officer.

1051 repairs have been made to splints and special boots.

143 new special boots have been supplied.

**Open-Air Education.**

*Playground Classes.* At certain schools classes (apart from games and physical training) are held in the playground on favourable occasions during the summer months. Statistics are not available. There appear to be several practical difficulties in the way of holding such classes, e.g.

Noise of traffic.

The presence in the playground of drill and game squads.

The keeping of the furniture required for the classes.

The weather, which prevents routine times being fixed.

There are no permanent classrooms on open-air lines in Plymouth ordinary schools.

*Day Open-Air Schools.* The two open-air schools for certified physically defective children continue to prosper.

At Mount Tamar, at the request of the Head Teacher, permission was given to hold classes in which selected children were gradually exposed to the sunlight. No evil resulted. To convince parents that the delicate child does not need, and is in fact injured by layers of woollen jumper is an end in itself.

The following is taken from the Head Teacher's report :—

" The work of the School during 1928 has continued steadily owing to the devotion and willing co-operation of the Staff in all matters appertaining to the children's physical and mental welfare.

| | |
|---|---|
| Average number on Roll—Jan.–Dec., 1928 | 168.5 |
| Average Attendance | 132 |
| Number of children admitted during 1928 | 110 |
| Number of children discharged during 1928 | 110 |
| Average length of stay of discharged children | 1 yr. 8 mths. |
| Number of children dealt with during 1928 | 261 |

" Vacation Schools run on lines similar to preceding years were again held during Easter and August.

" Swimming Certificates have been gained by three boys.

" In June permission was granted by the Education Committee to begin a Sun Bathing Class as an experiment. Consent was obtained from the parents, and twenty-nine girls, chosen by the School Medical Officer, were placed in the class in charge of Miss Trigg. The exposures were very gradual and great care was exercised to prevent blistering or the children from catching cold. Records were kept of temperatures of the children and also the temperatures of the atmosphere and observations generally. After a few weeks, when the weather was suitable, the girls wore one garment, specially made, consisting of short trousers with an apron front. They also wore hats and sandals. Extra garments were worn, accordingly as the weather demanded. An increase of general ' fitness ' was noticed in most cases, and the nervy, excitable children gained more control of themselves. One girl who was known to sleep very little at night greatly improved in this respect, and the mother was very pleased with her progress. A separate report of each child, giving gain in weight and general observations, has been submitted to the Medical Officer of Health. Next year we hope to extend the treatment to include the majority of the children.

"The heavy gales of the Autumn Term made the Rest Shed unfit for use as a classroom. The class usually housed there had to move into the Dining Hall when this was not in use. This was a serious disturbance to the class work. A fifth classroom is needed urgently, and better provision made to keep out the rain and wind from the Rest Shed. On wet and windy days enough dry floor space cannot be found to accommodate all the children for 'Rest.'

"Gas is still in use for lighting purposes, and as our windows are open always, it is very unsatisfactory. It is to be hoped that electricity will be installed this next year. The electric cable passes the School gate."

The Head Teacher of Efford Open-Air School reports :—

"The number of children on roll and in average attendance continued to increase, there having been an average of 163 on roll during the past year, with an average attendance of 126.

"Eighty-three children have been passed out as fit to return to an ordinary school, and 100 admitted.

"The year has been one of steady progress in all branches of our work, whilst the weather has been suitable for working entirely out of doors for a great part of the year.

"In the spring we held a re-union of old scholars, the first time we have had accommodation for such a gathering. Over two hundred attended, and so many expressed the desire to form an 'Old Scholars' Association' that it was formed that evening and the Committee and Officers elected. The Old Scholars' Association then met again in the Autumn. At the re-union nearly all the old scholars appeared so healthy, prosperous and well-mannered, that my staff and I realised afresh, and very keenly, how well worth while the work has been."

**School Baths.** The arrangements for School Baths were fully reported upon last year.

This year an attendant has been appointed to manage the bath at the Public Junior Mixed School on one afternoon per week for boys and one afternoon per week for girls. So far about 14 boys and 6 girls are stated to avail themselves of the privilege weekly.

The baths at Palace Court are extremely popular: 6455 boys' baths and 5368 girls' baths were given during the year.

**Co-operation of Parents.** Parents are invited by letter to attend the routine medical inspection at schools, and large numbers attend at the Clinics when their children are being treated or examined. Parents generally are most willing to co-operate in all that is suggested and done for their children.

**Co-operation of Teachers.** Prior to every routine inspection a large amount of clerical work has unfortunately to be done by the teachers, as has the organisation for the actual examination. The examinations run quietly and smoothly, and rarely are any signs of the tedious preparation observable. Without the moral support of the teachers the efforts of the medical staff to secure treatment would be largely discounted.

**Co-operation of School Attendance Officers.** The co-operation of the Attendance Officers is of great value in securing the attendance at the Clinics of many children who are being kept home from school for medical reasons, but who do not appear to be receiving any medical attention.

**Co-operation of Voluntary Bodies.** *Voluntary Association for Mental Welfare.* The Secretary of this Association reports :—

" On 31st December, 1928, there were fifty-three cases on our ' After-Care ' list for the Education Authority.

" Twenty-one cases were referred in 1926, 20 of whom became 18 years of age during 1928, and were removed from the ' After-Care ' list, and are now under ' Voluntary Supervision.'

" During 1927, 25 males and 9 females were referred, making a total of 34. Of these, one was transferred under Section 9 of the Mental Deficiency Acts to the care of the Local Control Authority, and is now under an Order of Guardianship ; five have been referred to the Local Control Authority, and placed under Statutory Supervision (these are still considered as ' After-Care ' cases for the Local Education Authority), and six were already on our Register. Thirty-three thus being left on the ' After-Care ' list.

" During 1928, 14 males and 7 females were referred, a total of 21. Of these, six were reported to the Local Control Authority, and placed under Statutory Supervision. Two were already on the Register.

" During the year special reports have been asked for, and in one or two cases escorts arranged. One education case was dealt with under Section 9 and is in a Certified Institution.

" As last year, the question of employment for defectives has been a difficult one, and efforts to obtain employment have had disappointing results.

" The new scheme by which a register of the ' After-Care ' cases circulates between the different Educational departments and the Voluntary Association each term for reports to be entered, appears to work satisfactorily and should prevent ' overlapping.'

" In March the first daily Training Centre was opened at the Central Hall, Fore Street, Devonport, and on April 30th a second was started at Norley Street, Plymouth. A fully trained and experienced Instructress was appointed ; and the results, judged by progress of scholars, attendance, and attitude of the parents, have been satisfactory. The Centres have been inspected by Officers of the Board of Control, and an encouraging report sent by the Board to this Committee and to the Local Control Authority.

### Devonport Training Centre.

*27th March to 29th June, 1928, inclusive.*

| | |
|---|---|
| Total No. of attendances .. .. | 740 |
| ,, ,, sessions .. .. | 56 |
| ,, ,, scholars .. .. | 22 |

Average attendance—about 60 per cent.

*July, 1928–December, 1928, inclusive.*

| | |
|---|---|
| Total No. of attendances .. .. | 1765 |
| ,, ,, sessions .. .. | 105 |
| ,, ,, scholars .. .. | 23 |

Average attendance—about 73 per cent.

### Plymouth Training Centre.

*30th April to 29th June, 1928, inclusive.*

| | |
|---|---|
| Total No. of attendances .. .. | 286 |
| ,, ,, sessions .. .. | 39 |
| ,, ,, scholars .. .. | 15 |

Average attendance—about 48 per cent.

*July, 1928, to December, 1928, inclusive.*

| | |
|---|---|
| Total No. of attendances .. .. | 1018 |
| ,, ,, sessions .. .. | 103 |
| ,, ,, scholars .. .. | 17 |

Average attendance—about 58 per cent.

" Of the above, 7 discontinued after short periods, for various reasons ; and there have been 5 ' occasional ' scholars. Most of the non-attendances were due to illness or bad weather. Up to the present practically all the scholars are of low grade.

" In regard to Employment, the figures are as follows :—

| | *Regular.* | *Casual.* | *At home.* | *Out of work.* | *Miscellaneous.* | |
|---|---|---|---|---|---|---|
| 1927 .. | 18 | 6 | 3 | 4 | 2 | = 33 |
| 1928 .. | 5 | 3 | 2 | 6 | 5 | = 21 |
| | | | | | | = 54 " |

The Secretary of the School Children's Fund reports that grants of 805 pairs of boots to the value of £351 14*s*. 6½d. and food to the value of £10 10*s*. 0*d*. were made during the year 1928.

**Blind, Deaf and Defective Children.**

(*a*) Ascertainment is secured by (1) reports from Attendance Officer concerning children who are being kept from school for some reason which apparently falls under one of the above headings ; and (2) reports from Head Teachers to the effect that on account of physical or mental defect a particular child is incapable of benefitting by the instruction in an ordinary school. In all such instances an appointment for a special examination at the Clinic is arranged, and certification and recommendations as required by the Board of Education are made.

The following are the statistics relating to the special examinations held :—

| | |
|---|---|
| Total examinations held .. .. .. .. | 298 |
| Certified Feeble-minded and recommended for Day Special School .. .. .. .. | 68 |
| Certified Feeble-minded and recommended for Residential Special School .. .. .. .. | 2 |
| Found to be dull and backward and recommended for classes for such .. .. .. .. | 19 |
| Certified Idiot and notified to Local Control Authority | 4 |
| Certified Imbecile and notified to Local Control Authority .. .. .. .. .. | 4 |
| Excluded pending later examination .. .. | 3 |
| Recommended for Open-Air School .. .. | 174 |
| Recommended for Residential School for Physical Defectives .. .. .. .. .. | 7 |

| | |
|---|---|
| Recommended for Residential School for Epileptics .. | 2 |
| Recommended for Deaf School .. .. .. | 3 |
| Recommended for Blind School .. .. .. | 1 |
| Recommended for a class for partially deaf .. .. | 1 |
| Returned to ordinary school .. .. .. | 10 |

(*b*) Arrangements for the supervision of mentally defective children not in Special Schools.

There are no certified feeble-minded children in ordinary elementary schools, but a certain number of children (24 in 1928) so certified are sent by their parents to private schools. The Attendance Department annually informs the School Medical Officer of the names and addresses of these, and appointments are made for their examination by a Certifying Officer to ascertain how they are progressing, if their certificates may be cancelled, and finally if they should be reported to the Local Control Authority.

(*c*) The Special School for Feeble-minded Boys, Salisbury Road.

There are 118 boys on the roll and the average attendance during the year was 100. Thirty-one boys have left and 16 have been entered. The Head Teacher draws attention to the diminishing numbers.

Success has come to the nine years of effort on the part of the Head Teacher to secure a school garden in place of the unsatisfactory unfenced allotment.

Much importance is attached to the training involved in the playing of games. The object is not to make experts but to develop the spirit of honest co-operation with others, and the self-control which is so often lacking in boys of this type. The teachers have as difficult a task on the sports' ground as in the classroom, and deserve every praise for the patience they invariably exhibit. A very successful Sports' Meeting was held in July. Swimming classes are held every summer. The Head Teacher reports: "When one bears in mind the difficult type of boy frequently sent here it is surprising how pleasantly the work proceeds. Every effort is made to fit the curriculum to the individual child, and no stone is left unturned in an attempt to make good citizens of unpromising material."

Similar remarks apply to the Mixed School, where at the end of 1928 there were 65 boys and 119 girls. During the year 24 boys and 33 girls were admitted, and 21 boys and 23 girls left. The average attendance was 150.

At the Hartley House School for the Deaf there are 17 boys and 19 girls on the roll, and the average attendance during the year was 32. Four children have left and four have been admitted during the year.

**Secondary and Higher Schools.**

This work has steadily increased during the past five years. Practically all children in these schools are now being inspected during their first term and regularly every year after. A lady doctor does all the inspection of girls.

The facilities of the Clinics for eyes, cripples, and minor ailments are all available for these children, as well as the Authority's arrangements for tonsil operations and X-ray treatment of ringworm. At present the dentists can only undertake to deal with those urgently in need of dental attention, and whose parents cannot afford to obtain treatment privately.

**Employment of Young Children.**

The names of all children to be employed during specified hours or in street trading or on the stage are reported to the School Medical Officer by the Attendance Department, and examinations are arranged at the Clinic previous to issuing the necessary medical certificates.

Eleven Street Trading and 64 Employment Certificates were issued during the year. All theatres where children are employed are visited during the period of such employment by a Medical Officer, and the conditions under which they work are ascertained. If such conditions do not meet with the Medical Officer's approval report is made to the Authority and necessary steps are taken. The lodgings occupied by such children are also visited and dealt with in a similar manner.

# APPENDIX IX

## The Health of The Port of Plymouth.

By DONALD DAVIDSON, M.D. (Lond.), M.R.C.P. (Lond.), D.P.H. (Lond.)

*Port Medical Officer.*

The Plymouth Port Sanitary Authority was constituted in the year 1882 by a provisional Order of the Local Government Board, dated 16th May, 1882, which was subsequently confirmed by Parliament, and also by an Amending Order for the Permanent Constitution of the Port Sanitary Authority, of the 4th November, 1902. This Order came into operation on the 1st December, 1902. On the 9th November, 1923, the Corporation of Plymouth was constituted the Port Sanitary Authority.

## CONTROL OF INFECTIOUS DISEASES.

All ships from foreign ports on arrival at Plymouth are boarded by the Port Medical Officer, generally in the Sound or in Cawsand Bay. Cases of sickness or of death are investigated there and then, and in the event of a definite or suspected case of infectious disease being discovered, action is taken appropriate to the particular disease. It is customary for ships to send in advance a wireless message to their Agents in Plymouth notifying the time of arrival and what sickness, if any, they have on board. Where this is done much time is saved in disposing of the case. When one of the exotic infectious diseases—Cholera, Plague, or Yellow Fever—has occurred on the voyage this fact would be notified also to the Pilot and to the Boarding Officer of Customs in reply to their enquiries, and they would detain the ship and report the matter to the Port Sanitary Authority.

A list of Infected Ports is supplied to the Officers of Customs and to the Board of Trinity Pilots, with a request that all vessels, other than passenger vessels, that have come from or touched at an Infected Port should be detained in the Sound until the Port Medical Officer can deal with them. The list is revised when necessary.

For purposes of administration and disposal the imported infectious diseases fall into four groups: (1) the major infectious diseases; (2) the notifiable infectious diseases, for which accommodation is normally provided in the City hospitals; (3) the minor infectious diseases, for which no accommodation is provided, but which nevertheless require isolation; and (4) minor infectious diseases not requiring isolation.

Group 1 comprises Cholera, Plague, Yellow Fever, Typhus Fever and Smallpox. Such cases are not allowed to land, but are transferred in the motor launch *Clytie* from the vessel to the hospital ship *Flamingo* in Jennycliffe Bay and there detained until no longer infectious. All persons on board are regarded as contacts and are watched and examined daily during their stay in port; or, where there are passengers landing, their names and addresses are taken and forwarded to the Medical Officer of Health of the district to which they are proceeding, so that they may be kept under observation until the quarantine period is over. All parts of the ship liable to be infected, such as cabins, clothing and bedding, are disinfected, generally with sulphur, and the vessel allowed to proceed. Where the whole ship is infected, liquid Hydrocyanic Acid might be employed rather than Sulphur, and an arrangement exists with a private firm to do this at short notice.

In case of Smallpox vaccination would be offered to everyone, and in case of Typhus delousing of contacts would be undertaken at one of the City hospitals.

The hospital ship *Flamingo*, the last of the three hospital ships that used to lie at anchor in Jennycliffe Bay, after eighteen years' useful service, will shortly be sold and its place taken by the new isolation hospital at Lee Mill. The change should occur early in the New Year. The arrangements for dealing with sea-borne cases in this group will then necessitate the case being brought ashore in the motor launch *Clytie*, put on the city ambulance and taken out to Lee Mill. Suitable cases, such as a Typhus or a Plague that had been rendered non-infectious by removal of lice or fleas, might be nursed at Mount Gold Hospital instead of at Lee Mill. Additional nursing staff and equipment should it be required would be obtained from one or other of the City fever hospitals.

Group 2 comprises Continued Fever, Diphtheria, Dysentery, Enteric Fever, Ophthalmia Neonatorum, Puerperal Fever, Relapsing Fever, Scarlet Fever, Tuberculosis, and Venereal Disease. These diseases are taken into the isolation hospitals at Mount Gold or Swilly or to the Venereal Department at the South Devon and East Cornwall Hospital.

Group 3 comprises Acute Polio-encephalitis, Acute Poliomyelitis, Encephalitis Epidemica, Erysipelas, Chicken-pox, Cerebrospinal Fever, Insanity, Measles and German Measles, Whooping-cough and Mumps. None of these cases are taken into the City isolation hospitals. They are required to make arrangements through the Company's Agents for isolation locally in a nursing home, private house or infirmary.

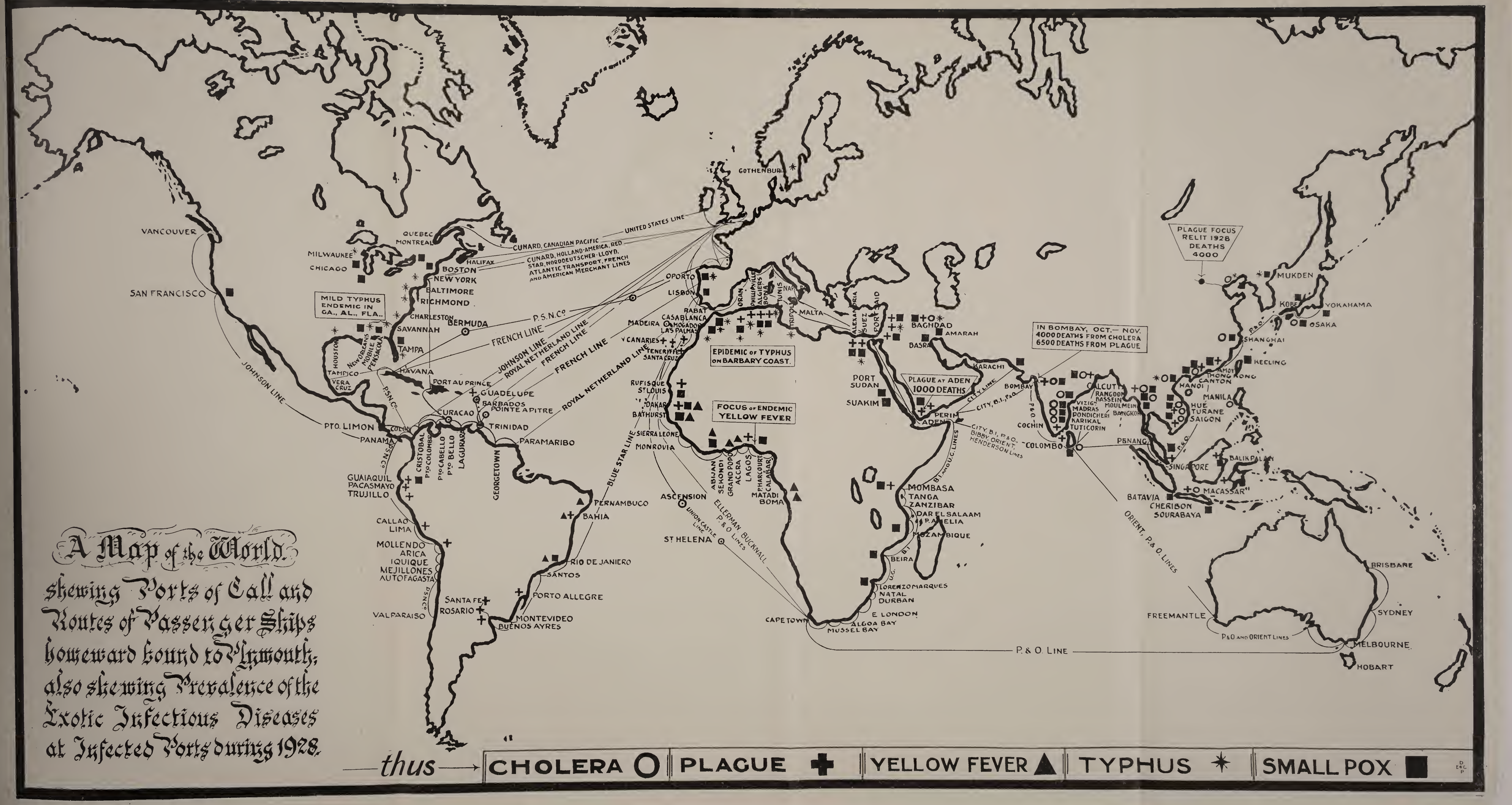
Group 4, although infectious, require no isolation and must make their own arrangements for treatment. This miscellaneous group includes among other things, Acute Primary Pneumonia, Acute Influenzal Pneumonia, Favus, Influenza, Leprosy, Malaria, Ringworm, Scabies and Trachoma.

**Cholera Asiatica.**

Asiatic Cholera still remains confined to Asia. It is now many years since it has been able to burst through the international sanitary cordon that has been drawn round that Continent. The extremely short incubation period, the shortest of any disease, together with the abrupt onset and rapid course of the disease, render it possible to diagnose and stop the infected case at the first port (Suez, Port Said, Port Sudan), and so enables the cordon to be drawn round Asia to a tightness that is not possible with the other infectious diseases of longer incubation.

The accompanying map shows clearly the efficacy of the sanitary blockade in localising Cholera to Asia ; and even the prospect of rapid aerial transport, while calling for a second line of defence, cannot in any way shake the strength of the blockade.

It is unfortunate that a similar blockade cannot be adopted in respect of the other major infectious diseases, but the incubation periods of Plague (2 to 5 days or more, plus 14 days between rat epizootic and human epidemic), of Yellow Fever (3 to 4 days, plus 8 to 9 days more for mosquito cycle), to each of which must be added two more days before diagnosis can be made, and Typhus (12 to 18 days), are sufficiently long to enable a ship to pass through the cordon before the disease has declared itself.



A Map of the World shewing Ports of Call and Routes of Passenger Ships homeward bound to Plymouth; also shewing Prevalence of the Exotic Infectious Diseases at Infected Ports during 1928.

—thus→ CHOLERA ○ | PLAGUE ✚ | YELLOW FEVER ▲ | TYPHUS ✳ | SMALL POX ■

No cases or suspected cases of Cholera penetrated the lines as far as Plymouth this year.

**Plague.** The year has been marked by a recrudescence of Plague in India, Rhodesia, China, Argentine, and so near home as Teneriffe, Madeira, Canary Islands and Lisbon.

The home of Plague continues to be India, where it has been established since time immemorial, and while the populace continues to enjoy hygienic conditions comparable to those of mediæval Europe, so long must India remain the home of Plague.

The outbreak in Rhodesia and South Africa, which has attained formidable dimensions in the interior of the country has never approached nearer than ten miles to the Coast, and at the time of writing the ports are still free of infection.

In China, 200 miles up the Hoang Ho, an epidemic that commenced in 1917, and remained smouldering ever since, has now erupted with explosive violence. There the infection is one of unusual virulence, over 90 per cent of those attacked dying, and the course of the disease correspondingly rapid, the majority dying within twenty-four hours. The deaths reported to date exceed 4000. It is fortunate that the course of the Hoang Ho is interrupted by frequent rapids, preventing native craft carrying the Plague down to the ports on the Yellow Sea.

Contrast this virulent type of Plague with the comparatively mild type prevalent in South America. There the onset of the disease is slow, the clinical symptoms less severe, and the mortality only slight, and ambulatory and chronic cases both in man and rat more common. The virulence of the organism is attenuated by adverse circumstances peculiar to the country. A notable centre of infection is Rosario de Santa Fé in the Argentine, a port on the Plate River above Buenos Ayres. Since December, 1927, Plague had been raging there among the rats in the stores and warehouses that abut upon the docks. From the rats the Plague spreads from time to time to the stevedores, wharfingers, warehousemen and others who work about the docks. The infection spreads also to the ships that stand in the docks.

During the year several ships have arrived at English ports from Rosario and the Plate River with dead and dying rats on board which on bacteriological examination have proved to be infected with Bacillus Pestis.

On 4th February, 1928, the Greek steamship *Nicolas Pateras*, with a cargo of maize, sailed from Rosario via Dakar to Plymouth, arriving 14th March. The Captain reported " No sickness on board, no sickness during the voyage." Accordingly pratique was granted by His Majesty's Customs and the vessel entered Millbay Docks and commenced unloading the same afternoon. Next morning among the sacks of grain our ratcatchers discovered the bodies of three dead rats. Unloading was stopped. The Captain was again interrogated and the crew mustered, when there was discovered a negro trimmer, John Luiz, in a collapsed condition, with a high temperature and a mass of glands in his neck. Plague was diagnosed by myself and the Deputy Port Medical Officer, Dr. Hynes, and the man was removed to the hospital ship *Flamingo* and the vessel put into quarantine. All trucks and lorries standing loaded in the docks and all those that had left the docks were traced and fumigated. The *Nicolas Pateras* was disinfected with Hydrocyanic Acid gas, and the *Cicilia*, a ketch that had taken part of the cargo, with Sulphur Dioxide. Contacts, that is to say all persons who had been on board, were examined daily for five days, but no other case developed. Especial care was taken that no rat should escape from the ship into the docks.

Prior to the arrival of the above-mentioned vessel, the steamship *Kaisar-I-Hind* touched at Plymouth to land passengers on 18th January. There had been no case resembling human plague on board nor had any rats been seen, but subsequently when unloading cargo at London five dead rats were found in one of the holds, and these, on examination, proved to be infected with Bacillus Pestis.

Only these two plague-infected ships arrived in Plymouth during the year.

**Yellow Fever.** In spite of much research work done this year, work which cost Drs. Adrian Stokes, Young and Noguchi their lives, the problem of Yellow Fever is still unsolved. Both in Brazil, where a recrudescence has recently occurred, and on the West Coast of Africa there must exist foci of endemic infection. Such a focus would be a native district inhabited by an immune population with no recently arrived white men. Here mild undiagnosed, and indeed almost undiagnosable, cases of Yellow Fever in negro children would be common, but deaths would rarely occur ; the smouldering carrier infection is invisible ; and yet from this innocent looking place, whenever conditions are favourable, the disease spreads along the trade routes by railways, rivers, automobiles, airplanes and coastwise vessels, to appear hundreds of miles away in epidemic form among a susceptible (i.e. white) population. The focus lies probably at the back of Sierre Leone, but until it is located all efforts to stamp out the disease are foredoomed to failure. A ship, especially a wooden ship, should present just such a susceptible population and provide fairly favourable conditions for the existence of the Yellow Fever mosquito ; but thanks to the careful anti-mosquito measures taken on board, the medical examination of all passengers embarking and disembarking, and to the fact that ships are required to anchor at least one thousand yards from the shore, no case of Yellow Fever in an infectious stage was brought to Plymouth this year.

**Typhus Fever.** Numerous ships come to Plymouth from Typhus-infected ports, and on these many cases were seen which aroused suspicion and required very careful examination before Typhus could be definitely disproved ; for Typhus is the most difficult to diagnose of all the major infectious fevers, more difficult even than Yellow Fever ; in both cases the disease is seldom diagnosed before the fourth day or the autopsy, whichever is sooner. And just as in recent years Smallpox and Plague have been appearing in mild form, so a mild form of Typhus (Tabardillo, Brill's Disease) has been recognised all down the Atlantic border of Georgia, Alabama, and Florida, where 240 cases were diagnosed last year, the actual number being no doubt very much larger. Endemic Typhus extends along the seaboard as far north as New York and Boston, where it is liable to infect all classes of the population. No cases occurred on board any ship calling here during the year.

**Smallpox.** Of all the major infectious diseases Smallpox is the most likely to come to Plymouth by sea. Its world-wide distribution, long incubation and highly infectious nature enables it to obtain entrance into practically any ship.

The British India Company's steamship *Mashobra* from Indian ports called at Plymouth on 8th April, and reported having had a case of Smallpox occur on 9th March. The patient was one of the saloon crew, a lascar. He was landed the same day at Madras, his clothing destroyed and quarters disinfected. Sixty contacts were re-vaccinated, and no further case of Smallpox developed ; but on 12th, 27th, and 27th of the same month three cases of Chicken-pox appeared among the passenger children. On examination I was satisfied that they had undoubtedly been Chicken-pox. Two landed at Plymouth and one proceeded in the ship to London.

The presence of the mild form of Smallpox in the Tyne ports is another source of anxiety. There are grounds for believing that one of three colliers which arrived from Blyth during the month of June had on board a convalescent but still infectious case of mild Smallpox and that from this case the recent epidemic in the City had its origin. The crews of these and of all other vessels from the Tyne ports were examined on arrival as long as Smallpox was present in those ports.

**Dengue Fever.**

A severe epidemic of Dengue occurred in Athens and Piræus during August, 90 per cent of the population contracting the disease, which resulted in over one thousand deaths.

Four cases of Dengue were investigated during the year. They had all recovered before they touched Plymouth.

The accompanying Map of the World shows clearly the position of Plymouth in respect of the Exotic Infectious Diseases.

The principal ports of the world that were infected with Cholera, Plague, Yellow Fever, Typhus or Smallpox during 1928 are named and marked with a different sign for each disease. The Routes and Ports of Call of all passenger vessels homeward bound to Plymouth are also shown.

It will be seen that the majority of infected ports are either ports of call for these vessels or are within such easy distance of a port of call that a person travelling to Plymouth from one of these ports off the main route would have reached the port of call and transferred to the Plymouth ship before the disease became manifest.

Routes and ports of call of cargo boats are not shown.

**Venereal Diseases.** All ships coming into the docks are boarded by the Port Sanitary Inspector in the course of his duty, and while making enquiries about sickness on board he supplies where necessary any information concerning Venereal Diseases and pamphlets giving the times and days on which Dr. Kettlewell holds his clinics at the South Devon and East Cornwall Hospital.

Since ratification of the International Agreement of 1925 for the free treatment at all ports of seamen suffering from Venereal Disease irrespective of nationality, there has been a marked improvement in the standard of treatment obtainable by seamen. With regard to Syphilis the great difficulty caused by ignorance of the nature and extent of a man's previous treatment has been overcome successfully by the use of a traveller's card giving a complete record of treatment received at each port. Full advantage is being taken of the scheme and the results are excellent, but owing to the intermittent character of the treatment the full course necessary for a cure is still very protracted, a matter of ten years or more, and many fail to complete the course. In spite of this and the fact that those who follow the sea are peculiarly liable to venereal infection while worshipping at the joint altars of Bacchus and Venus, yet there can be no doubt that Syphilis is steadily declining among seamen and is already much less common than before the War.

Not so Gonorrhœa ; for the effective treatment of Gonorrhœa is essentially incompatible with a seaman's calling and cannot be given out piecemeal, a little at each port. Certainly the facilities for obtaining treatment are much better now than previously, but the position must remain definitely unsatisfactory, and little improvement can be expected until some more suitable form of treatment is discovered.

**Other Infectious Fevers.** The other infectious fevers were frequently present on board ship, and action was taken appropriate to each case.

One ship, the steamship *Arandora,* had an epidemic of Enteric Fever, five cases occurring among the crew following their stay in an insanitary part of Buenos Ayres.

Another, the steamship *Alaunia,* had six cases of Diphtheria among the third-class passengers. A supply of antitoxin was taken off, the cases proceeding in the ship.

In doubtful cases, where a bacteriological examination would be of assistance, specimens of blood, pus, throat swabs, etc., are taken and sent to the City Pathologist for examination and the report acted upon here, or if the ship has left, telegraphed to the next port of call.

## BATHING POOLS.

The popularity of the bathing pools along the foreshore results in considerable pollution of the water during the overcrowding on a hot summer's afternoon. At this hour, however, the pools are invaded chiefly by children, who are much less likely than adults to carry and spread water-borne diseases such as Typhoid. At most times of the day and always before breakfast the water in the pools is comparatively pure, Bacillus Coli being nearly always absent from 5ccs., and usually absent from 1cc. (See Table 36.)

## WATER SUPPLY.

Vessels coming into the docks obtain supplies of fresh water from the Corporation water mains on the quays. Vessels not coming into the docks are supplied by water boats, of which there are two, the *Rescue* and *John Wesley,* holding respectively 4000 and 4500 gallons. Periodical inspections are made of the water boats and their equipment and samples of water are taken from the tanks and examined by the City Pathologist.

The results of bacteriological examination upon the worst occasion showed Bacillus Coli to be present in 25 ccs., but absent from 10ccs. in tap water from the mains ; present in 5ccs., but absent from 2ccs. in the tanks of the *Rescue ;* present in 25ccs., but absent from 10ccs. in the tanks of the *John Wesley.*

The condition of the tanks, pipes, pumping equipment and bacteriological findings of the *Rescue* is satisfactory, but the condition of the *John Wesley* is less satisfactory, and it has been found necessary to have this boat replaced by the *Ela,* a new boat carrying 5500 gallons of water.

## OYSTERS.

Oysters grow naturally in the estuary of the Tamar from Cargreen to Rubble Bank Buoy ; in St. Germans River from Tregantle to Blackrock Point. The oysters are not protected or cultivated in any way.

In April each year dredging is commenced, as many oysters as possible being taken from the beds by the dredgers. They may not be sold to the public because the Tamar is grossly polluted with sewage, but are purchased by the Yealm Oyster Fisheries and the Duchy Oyster Farm, Port Navis Creek, and Helford River, for replanting in the comparatively pure waters of the Yealm and Helford rivers until ready for sale.

This year only 60,000 oysters were obtained from the Tamar, and these were sent to the Yealm Oyster Fisheries. Last year it was 100,000 and the year before 150,000. Each year shows a significant reduction on the previous year. Last year's yield of 100,000 was so small as to be uneconomical for the dredgers and prejudicial to the future stock of the beds. There is every reason to believe that the beds have been over-dredged and that they should be given a rest for several years. Fortunately the Spring and Summer of last year were fairly warm, and this should provide a more abundant food supply for the spawn and favour a higher settlement of spat, which would mean good oysters large enough to dredge in three years' time, but not before.

Meantime the pristine purity of the River Yealm is threatened by the crude sewage being discharged into it from the new houses springing up on its banks. At any depth Bacillus Coli is to be found in 5 ccs., of water.

The oysters from the beds still attain to an exceptionally high standard, averaging only one Bacillus Coli per oyster. Oyster Fisheries are also inspected and watched by the Worshipful Company of Fishmongers and by the Board of Agriculture and Fisheries.

Last year Mr. Kingcombe, Manager of the Yealm Oyster Fisheries, began the experiment of breeding and rearing his own oysters from spawn. The results were satisfactory, some 5000 little oysters settling on the tiles in the tanks. They are now grown as large as halfpennies and are doing well. This year he again put in some spawning female oysters and in a short while the tanks were teeming with larval oysters, but not one would settle on the tiles. Spawning oysters have been put in frequently from April to October but still no settlement, and the reason is far from obvious. On the assumption that too much sunlight might kill the larvæ, part of the tanks have been covered over, but still they do not settle. There is the possibility that perhaps the quantity of larvæ exceed the available food supply. The food of the larvæ is unknown, so various things have been put into the tanks, including rotten oysters, but with no apparent results.

## OTHER SHELLFISH, ETC.

Crabs, Crayfish, Clams, Limpets, Lobsters, Mussels, Prawns, Shrimps, Winkles, as well as many kinds of flat and round fish are caught in the Sound, often in places subject to considerable sewage pollution (see Table 36), but these fish are usually well cooked before consumption, and so no disease is likely to arise from this source. Of the six cases of Enteric that occurred in the Three Towns in no case was the cause traced to fish.

## HOUSEBOATS.

The area of the Port Sanitary Authority extends up the River Yealm and Tamar, and includes all creeks, waterways and as much of the foreshore as lies within the ebb and flow of the tide. In the lower reaches of the Yealm a number of pleasure houseboats are moored in mid-stream. They are occupied only at week-ends in the Summer. Their accommodation is adequate and sanitary condition excellent.

Houseboats of another kind are kept on the mud in Hooe Lake, Tamar Canal, Stonehouse Pool, and on the banks of the Yealm and Tamar from Devonport to Calstock. They are occupied on account of the housing shortage permanently by large families and tend to be overcrowded, but not to such an extent as to call for interference, nor as a rule can exception be taken to their sanitary condition.

## MEDICAL WORK UNDER THE ALIENS' ORDER, 1920.

As the facilities offered by Plymouth as a Port of Call for ocean liners are being more and more appreciated by the great shipping companies, so the number of aliens landed here shows a steady increase year by year. (See Table 37.)

The actual number of aliens, excluding alien seamen, landed this year was 16,735, all of whom were medically inspected or examined. Those staying for more than three months were treated as immigrants and subjected to more careful medical examination, so that no alien should be permitted to land who by reason of physical or mental infirmity might become a burden or charge upon the community.

## PURITY OF THE WATERS OF THE PORT.

**Oil.**

In my last report I noted that certainly some and probably much of the oil pollution of the Sound was traceable to the discharge of waste oil from oil-burning battleships, and I expressed a hope that the Admiralty would take steps to prevent the discharge of oil refuse from their vessels while in port or near the shore. Since then an Admiralty Fleet Order has been issued to the effect that no oil refuse is to be discharged within fifty miles of the coast, nor to be handed over to sullage contractors or others except on that understanding ; but that the oil refuse is to be sold for its commercial value, if any, otherwise to be absorbed by sawdust, oakum or other absorbent material and used as fuel in the boilers of yard plants.

This Order is very welcome in Plymouth, where for many years the bathing amenities and pleasantness of the foreshore have been marred by the patches of drifting oil. Of recent years the nuisance has been more noticeable, and strangely enough worse in Summer than Winter. It remains to be seen what improvement follows the Admiralty Order. Unfortunately, heavy oil on water is practically indestructible and from no matter how far out to sea must eventually be blown inshore. Meanwhile enquiry into other possible sources of oil pollution is still proceeding, but no definite results have yet been obtained.

**Sewage.**

An investigation has been conducted into the state of Sutton Harbour in respect of sewage pollution. It is the custom for the fishermen at the Fish Quay to wash their fish in the water of the harbour, and doubts had arisen as to the safety of using the water for this purpose. Samples of water were taken from all parts of Sutton Harbour at hourly intervals during the rise and fall of the tide. In each sample the quantity of Nitrite was estimated, to form a comparison between one part of the harbour and another, and compared with similar estimations in the Cattewater. The results were standardised by bacteriological control.

It seems that the water in the harbour is practically identical with that in the Cattewater, whence most of it has come.

Bacillus Coli is to be found in $\frac{1}{10}$ cc., at all states of the tide except just before and at high tide, when Bacillus Coli is present in as much as 2 ccs. The contamination involves all the harbour, but the neighbourhood of the Fish Quay is always more polluted than others parts. From these results it must be concluded that the water is definitely, but not grossly, polluted and would be dangerous to drink, but as no one expects fish to be clean and the purchaser always washes and then cooks it, little risk is run, and it was decided that no real danger attached to the practice of washing fish in Sutton Pool. No case of Typhoid in Plymouth for many years has been caused by eating fish.

## SANITARY AND FOOD INSPECTION.

I am indebted to Mr. R. W. Weale, the Sanitary and Food Inspector, for the following report on Foodstuffs and the Sanitary Condition of the Port and its Shipping. Mr. Weale, whose eyesight has recently been causing him much anxiety, returned to duty after six weeks' sick leave, his bodily health completely restored but still experiencing difficulty with his vision. At present, with the assistance of Mr. A. S. Kitt to keep the books, he is quite capable of performing his duties with the same efficiency that I have had cause to praise previously.

The two years' extension of service granted to Mr. Weale in 1927 expires in November, 1929, and I am afraid his sight may prevent him seeking further extension of service under the Port Sanitary Authority. I am sure that when the time arrives he will feel keenly the parting from this Authority, under which he has served for the past twenty-eight years.

**Sanitary Inspection.** During the year 2869 vessels were dealt with in connection with alien work, sanitary and food inspection and deratisation measures. They consist of 1005 steamers, 131 sail, 83 fishing and 110 motor vessels trading from foreign ports ; and 923 steamers, 221 sail, 99 fishing and 297 motor boats trading coastwise ; these particulars are summarised in Table A. The total registered tonnage of these vessels amounted to 6,740,888 tons, and carried crews numbering 251,553 persons. Table 38 also brings out these facts and gives a comparison for the past ten years.

The hygiene of crews' spaces of vessels has been again marked by a steady improvement in the cleanliness of crews' quarters, lavatories, bathroom accommodation, storerooms and other spaces. The total number of Informal Notices served was 127, with a total of 690 sanitary defects to be remedied. Little or no difficulty was experienced in obtaining compliance with the necessary requirements to put the vessels in a sanitary condition; these were principally carried out at this port, but if time and circumstances did not permit of the work being attended to here, permission was given to remedy the defects during the round trip or at the terminal port. In such cases duplicate notices were forwarded to the owners and to the Medical Officers of Health of the ports to which the vessels were proceeding, who duly notified us of the remedying of the defects. I may add that owing to the expense that would be incurred, structural improvements were usually referred to the owners for approval before being carried into effect. The following table gives a classification of the nuisances :—

| Nationality of Vessel. | Number inspected during 1928. | Defects of original construction. | Structural defects through wear and tear. | Dirt, vermin, and other conditions prejudicial to health. |
|---|---|---|---|---|
| British .. .. | 2155 | — | 60 | 216 |
| Other Nations .. | 714 | 2 | 85 | 327 |
| TOTAL .. | 2869 | 2 | 145 | 543 |

As will be seen by Table 40, the principal defects requiring immediate remedying were the cleansing of bedding, bunks, crews' quarters, food lockers, storerooms, and water closets, also in order to exclude dampness, the repairing of deck plates, funnelling and side lights.

The crews seem to take a greater interest in the cleanliness of their quarters and are only too ready to carry out any requirements in order to make their quarters more homely. At the same time a good deal might be done by the owners to improve the conditions by constructing crews' quarters amidships instead of the obsolete, insanitary and unhealthy position forward, as found in the majority of cargo vessels.

The health of the crews has been very good, no sickness of a serious nature having been reported during the year, other than a case of Plague landed from a cargo vessel, the particulars of which have already been given.

The sanitary condition of the stores, sheds and warehouses has not altered appreciably since my last report. They remain for the most part satisfactory. This year the Great Western Dock Authorities have not reconstructed any of their sheds with a view to making them rat-proof, but have, however, kept the old sheds in a thoroughly clean condition, limewashing walls and undertaking general repairs where necessary. At Victoria Wharves, Messrs. Coast Lines Ltd. have removed the old biscuit stores around the eastern end of the dock and are now reconstructing new buildings. In addition, they are also remodelling the western end with a view to extending their buildings, and when completed this will be a great improvement for storing the cargoes of the many vessels that call, for at present the stores are somewhat congested.

**Foodstuffs.** During the past year 604 vessels were dealt with under the Public Health (Imported Food) Regulations, 1925 and 1926, including 330 from foreign and 274 from coastal ports. Vessels arriving with cargoes of grain from foreign ports were subjected to measures under the Rats and Mice (Destruction) Act, 1919, whilst with those arriving from infected ports special precautions were taken against the importation of Plague and other serious infectious disease.

### PUBLIC HEALTH (IMPORTED FOOD) REGULATIONS, 1925–26.

The principal landing wharves and docks for all foodstuffs discharging at Plymouth are the Great Western Docks at Millbay; Victoria Wharves and Messrs. Burnard & Alger, Ltd., at Cattedown; and Sutton Pool.

*At the Great Western Docks* the following lines of steamers call for the purposes of embarking and disembarking passengers, also to discharge and load foodstuffs and general cargo, viz. :—

| | | |
|---|---|---|
| Clyde Shipping Co. .. | Weekly .. | From Belfast, Glasgow, Greenock and Waterford to land passengers and discharge general cargo. |
| Do. .. | Weekly .. | From London to land and embark passengers, also to load cargo. |

| | | |
|---|---|---|
| Plymouth, Channel Islands and Brittany Steamship Co. | Weekly .. | From St. Brieux and Channel Islands to land passengers and discharge general cargo, particularly fruit and vegetables; returning with passengers and general cargo. |
| British Steam Navigation Co. | Fortnightly.. | From Antwerp and Rotterdam with general cargo and foodstuffs. |
| Holland Steamship Co. | Fortnightly.. | From Amsterdam with foodstuffs and general cargo. |
| Hutchinson, J. & P., Ltd. | Fortnightly.. | From Hamburg with fruit, vegetables and general cargo. |
| South Sweden-Plymouth Line | Every 3 weeks | From Gothenburg with general cargo and foodstuffs consisting of butter, blood puddings, meat balls, milk (dried), etc. |
| Spillers & Bakers .. | Irregularly .. | From Cardiff and Swansea with flour, cattle food, etc. |

This season (22nd May to 31st July) proved a record one for the usual supplies of strawberries, green peas and new potatoes imported from France, the quality being of a high standard. The following are the quantities of strawberries and green peas discharged at this Port during the past five years, viz. :—

| | |
|---|---|
| 1924 .. .. | 289,725 parcels of 2,869 tons. |
| 1925 .. .. | 170,262 parcels of 1,607 tons. |
| 1926 .. .. | 245,606 parcels of 2,345 tons. |
| 1927 .. .. | 315,886 parcels of 3,019 tons. |
| 1928 .. .. | 337,827 parcels of 3,230 tons. |

Six to eight coasting steamers were specially engaged during the season in bringing the fruit and vegetables daily, with the exception of Saturdays, there being no market on the following day (Sunday). In addition, over twenty French ketches were plying to and from France with a constant supply of new potatoes, the cargoes weighing approximately 30 tons each and being despatched in the majority of cases by rail to the Midlands.

The Plymouth, Channel Islands and Brittany Steamship Company from St. Brieux and Channel Islands, have a weekly service for passengers and general cargo, the latter consisting of fruit, vegetables, fats of sorts, rags, bones, etc. On the return voyage, flour, canned goods, dried fruits, and other general requirements are taken back for the inhabitants of the Channel Islands.

The trade with Hamburg, Antwerp, Amsterdam and Rotterdam remains on a level with last year, as may be seen by Table 41. The confectionery imported last year from Antwerp shows a steady increase and continues to be of a high standard, and this together with its cheapness, brings it into strong competition with locally manufactured confectionery.

*At Sutton Pool* fruit and vegetables of all descriptions arrive from the smaller northern ports of France in ketches, small steamers and motor boats.

*At Victoria Wharves* Messrs. Coast Lines Limited have a regular service of steamers, both from the Eastern and Western routes, viz.: Weekly from Dublin, Liverpool, London, Southampton and return routes, also between Bristol, Buckie, Cardiff, Cromarty, Falmouth, Hull, Inverness, Invergordon, Lossiemouth, Manchester, Newcastle, Newquay, Penzance, Portsmouth, Swansea and Torquay. From Liverpool a constant supply of fruit, vegetables (imported), canned goods and other food commodities, also general cargoes, arrive weekly. From London a large quantity of canned goods, dried and fresh fruits, together with general cargoes, are discharged here.

## PUBLIC HEALTH (PRESERVATIVES, ETC., IN FOOD) REGULATIONS, 1925–27.

Some one thousand pounds (weight) of Boraxed Hams have been dealt with and condemned as unfit for human consumption in this country owing to the presence of borax. On permission being given for the hams to be exported, parcels were sent to all parts of the Continent; each parcel sent from this port was notified to the

Medical Officer of Health of the Port to which it was sent for exportation, and the contents verified at each stage.

During the year, samples of the following articles were taken and forwarded to the Public Analyst (Mr. T. Tickle, of Exeter), for analytical examination, with negative results for the presence of arsenic, preservatives, colouring or other injurious matter, viz. :—

| | |
|---|---|
| (*a*) Apples .. | From the United States of America. |
| (*b*) Chocolate .. | From Amsterdam and Rotterdam. |
| (*c*) Cocoa Powder .. | |
| (*d*) Rice .. .. | |
| (*e*) Rice, Ground .. | |

### PUBLIC HEALTH (CONDENSED MILK) REGULATIONS, 1923.

A number of casks of condensed milk were imported from Antwerp and consigned to a firm in the district. Under these regulations, no condensed milk can be sold to the general public unless contained in tins properly labelled with various necessary particulars. Consequently the milk was held up, awaiting a guarantee from the consignees to the effect that the condensed milk would be used solely for the manufacture of confectionery ; this was duly received and the milk released.

### PUBLIC HEALTH (IMPORTED MILK) REGULATIONS, 1926.

These regulations refer only to liquid milk, including skimmed and separated milk, but not condensed or dried milk. No liquid milk is imported here, so no supervision or action has been necessary.

The inspection of all foodstuffs necessitates special vigilance, particularly in respect of such articles as canned goods, fruit and vegetables (see Table 42), but little delay or difficulty is caused when one considers the numerous cargoes that are discharged at this Port. Over 126 tons of foodstuffs were condemned as unsound, unwholesome or unfit for human consumption, the articles consisting of fruit, vegetables, canned and bottled goods, fats of sorts, fruit pulp, grain, boraxed hams, etc., and as far as possible were disposed of to the best advantage ; details of both condemnations and disposal of foodstuffs may be seen in Table 43.

I would also point out that during the past year a new loose-leaf journal has been printed in order to fulfil the requirements of Tables 44 and 45, as asked for by the Ministry of Health. This journal consists of a complete record of all diseases which have occurred on board vessels calling at this Port during their homeward voyage. The diseases are classified therein according to whether disposed of during voyage, landed at Plymouth, or proceeding in ship, together with details as to whether crew or passenger, male or female, and any medical remarks. Infectious Diseases are arranged in exactly the same order as on the green card of weekly notification to the Ministry of Health. In the case of non-infectious diseases, the various maladies have been grouped and placed under their respective headings, e.g. Accidents and Violence : Burns, Contusions and Abrasions, Heat Exhaustion, Injuries, Sunstroke, Suicide, Septic Finger, etc. Acute Peritonitis : Acute Appendicitis, Acute Abdomen, Septic Abortion, etc.

In the exercise of my duties which involve close connection with all officials, including Officers of His Majesty's Customs and Immigration Department, the Superintendent and staff of the Great Western Docks and Victoria Wharves, Shipping Agents and officials of other departments, I have not had the least difficulty in settling the many problems that have occurred.

## RATS.

**Prevalence of Rats.** A brief survey of the strategical position in the Rodent Warfare may be conveniently made here. It is difficult because there is no means of assessing the rat population with any degree of accuracy. The number of rats trapped and the amount of poison bait that disappears give only a very rough indication. More certain is the evidence afforded by the damage done to edible stores, the markings of well-used runs, and especially the quantity of fresh rat droppings to be found. Although it cannot be expressed in figures, yet considering all these points together a strong opinion has been formed by the Port Sanitary Staff that there are appreciably fewer rats than formerly. That opinion is endorsed by warehousemen, shipping agents and others who suffer financially from the ravages of rats.

It would seem that the degree of rat infestation has been declining steadily for some years. The decline must be attributed principally to the replacement of wooden sheds by rat-proof concrete buildings. The destruction of rats that is continually proceeding no doubt also serves to keep down the numbers, but can only have a temporary effect, while the rat-proofing of buildings is remarkably effective and its results permanent. Rats may by chance gain access to a rat-proof building, but they cannot breed there ; they quickly leave it in search of water and are unable to return. There are still a number of wooden sheds in which they are firmly established, and on account of the underground rat runs and connections they defy destruction. The reduction in numbers has been most noticeable in respect of the Black Rat (*Rattus Rattus Rattus*), more commonly a carrier of Plague than the Brown Rat (*Rattus Norvegicus*). It has been against the Black Rat that attempts at extermination have been mainly directed. As a result of a series of intensive attacks on his haunts, the Black Rat has been almost exterminated and, except on board ship and a few in certain sheds in the Western Counties Wharf, no Black Rat has been seen in the docks for over twelve months. With this exception the Brown Rat is now the only variety to be found, but as he is equally capable of carrying Plague as the Black variety the same precautions and energetic measures are maintained as before.

During the year the two official rat catchers have been equipped with smoke machines, more traps and a greater variety of poison bait. As a result of the improved equipment the numbers of rats destroyed in the early months of the year showed a decided increase on the corresponding numbers for the previous year. From June onwards there followed a gradual decline in numbers until in November and December the figures were actually less than for 1927.

Rats are now becoming scarce in the docks and more difficult to catch.

A rat-flea survey has been commenced, but not yet completed. Rats are being caught, the fleas combed out under water, counted and mounted on microscope slides for identification. From the totals and more particularly from the number of plague fleas, *Xenopsylla Cheopis,* the Indian Plague flea, and *Ceratophyllus Fasciatus,* the Plague flea of North Europe, found on each rat it should be possible to form a rough idea of the probability of Plague spreading among the rats of the docks should it be introduced among them.

**Detection of Rodent Plague.** The majority of rats caught dead or alive are examined for the presence of Plague.

7,049 rats were examined macroscopically by myself and 228 sent for microscopical examination by the City Pathologist. In no case was Plague found. As these rats come from all parts of the docks it is inconceivable that an epizootic of Plague could start among the rats in any part without being detected almost immediately. The microscopic control further ensures that the chronic, symptomless form of Plague and the mild form *Pestis Minor*, that precedes an epidemic also could not pass undetected.

During the unloading of every vessel from an infected port one of the official rat catchers is aboard trapping, hunting with his dog, and looking for any dead bodies of rats disturbed by the moving of cargo. Rats found on board ship are almost always Black Rats and are most carefully scrutinised and dissected for evidence of Plague and a large proportion forwarded to the City Pathologist for investigation microscopically.

**Measures to Prevent Passage of Rats between Ship and Shore.**

All vessels calling at the port to discharge cargoes of grain or any other goods from infected ports are dealt with under the Plague and Cholera Regulations, 1907, the Rats and Mice (Destruction) Act, 1919, and the Port Sanitary Authorities (Infectious Diseases) Regulations, 1920.

The following printed requirements are placed on board the vessels immediately they moor alongside the quay, viz. :—

1. Ship to be moored not less than six feet from quay.
2. Gangways to be removed at night.
3. Protectors to be fixed on all hawsers leading from ship to shore.
4. Or hawsers frapped with canvas and freshly tarred every night.

These instructions are strictly adhered to, daily visits being made to the vessels during their stay, and rat destruction carried out on board.

Twelve vessels, including the infected vessel *Nicolas Pateras*, arrived from the plague-infected ports of Rosario and district and were subjected to measures under the above regulations ; 262 rats were destroyed on board. (See tables 46 A. and B.)

**Measures of Deratisation.**

Under the Rats and Mice (Destruction) Act, 1919, the onus of rat destruction on board ship falls upon the Master and on shore upon the owner and occupier of the premises. Their duty is constantly brought to their notice by posters, handbills and word of mouth. Many of the occupiers of stores in the docks take active steps to comply with the Act ; others are more apathetic, and it is in respect of these latter that such good work is being done by the official ratcatchers, advising, assisting, and encouraging them in the performance of their duty.

On vessels, in addition to the ordinary methods of rat destruction, poison gas is employed where a complete deratisation is required. Sulphur dioxide, compressed into cannisters as " Sulphume," is the gas usually used, because of its safety and the ease with which it can be stored and used in any quantity at a moment's notice ; but for more thorough and quicker work and for large vessels, Prussic Acid released from cylinders of the compressed gas is the disinfestant of choice. An arrangement exists with Fumigation Services Limited, of London, for that firm to perform any such work at short notice.

**Rat-proofing.**

(*a*) ON SHIPS. The process of rat-proofing of ships makes very slow progress. One seldom sees a cargo vessel so designed and built as to eliminate all waste spaces where rats might nest and run. On the older ships no attempt was made even to partially ratproof the ship. In modern ships concrete and metal is more extensively employed, and this, with the improved lighting and ventilation, increased space for crews' quarters, and better arrangements for cooking, storing and eating food has effected a marked reduction in the number of rats that can exist aboard. Passenger vessels are generally rat-proofed to a much greater extent ; after six months one would not expect to find more than a dozen rats on a good class passenger vessel.

The International Sanitary Convention of Paris, 1926, became effective in 1928. Under the articles of the Convention all ships trading with foreign ports are required to undergo examination every six months by an approved Port Sanitary Authority, which issues a Deratisation Exemption Certificate if satisfied that the ship is fairly free of rats, or a Deratisation Certificate where the ship is so badly infested that deratisation by gas has to be performed. The additional expense incurred twice yearly by ships that fall into the latter category should be a strong incentive to shipbuilders to build rat-proof ships.

(*b*) ON SHORE. No rat-proof warehouses have been built this year. The recently built warehouse at Victoria Wharves, Cattedown, has shown how satisfactory a rat-proof warehouse can be. The best sheds in Millbay Docks are only partially proof with concrete floors and sides of walls concreted to a height of six feet. It is a half-hearted measure, does not prevent entrance of rats, at most it only makes their movements a little more difficult. While far removed from the type of warehouse recommended by this Authority, yet it is a great improvement on the old rotten-timbered structure, and for the time being must be considered satisfactory.

The whole of that area of the West Wharf is badly riddled with subterranean rat runs and requires to be tackled as a whole. Many of the sheds are in a rotten state, rendering hopeless any attempt at exterminating the rats except by rat-proofing the whole of that area, but I trust the Great Western Railway Company will see their way clear to take the work in hand during the coming year.

## THE PORT.

The increase in ocean traffic noted in my report for 1927 has been maintained in 1928, when 708 liners called, landing 37,029 passengers and 325,412 bags of mails.

The corresponding figures for 1927 were 676 liners, 34,929 passengers, and 282,247 bags of mails.

The total registered tonnage of vessels inspected was 6,740,888 as against 6,196,506 tons for the previous year.

Against this steady rise in the number of passenger vessels must be offset a reduction in the number of cargo vessels coming into the docks to discharge cargo: 1,540 against 1,830 for 1927.

In a floating population of 460,000 there occurred 448 cases of notifiable infectious disease and 61 deaths, all of which called for careful investigation.

During the year two new shipping lines decided to make Plymouth a port of call, the Canadian Pacific Railway from Montreal and Halifax and the Pacific Steam Navigation Company from ports on the Pacific and Northern Coast of South America. The Blue Star Line from the Atlantic side of South America, after some trial voyages in 1927, has also decided to call regularly at Plymouth. A fortnightly service is now established. Early in the new year the South Atlantic Steamship Line will inaugurate a fortnightly service of oil-burning freighters from Savannah to Bremen via Plymouth.

The growing work in connection with sickness and aliens demands over 1000 hours of nightwork and necessitates my calling more frequently upon the services of the Deputy Port Medical Officers, Drs. Hynes and Kettlewell, who, in spite of having their own work to do, have never yet failed to come at once to my assistance when hard-pressed with mailboats. For this relief I am most grateful.

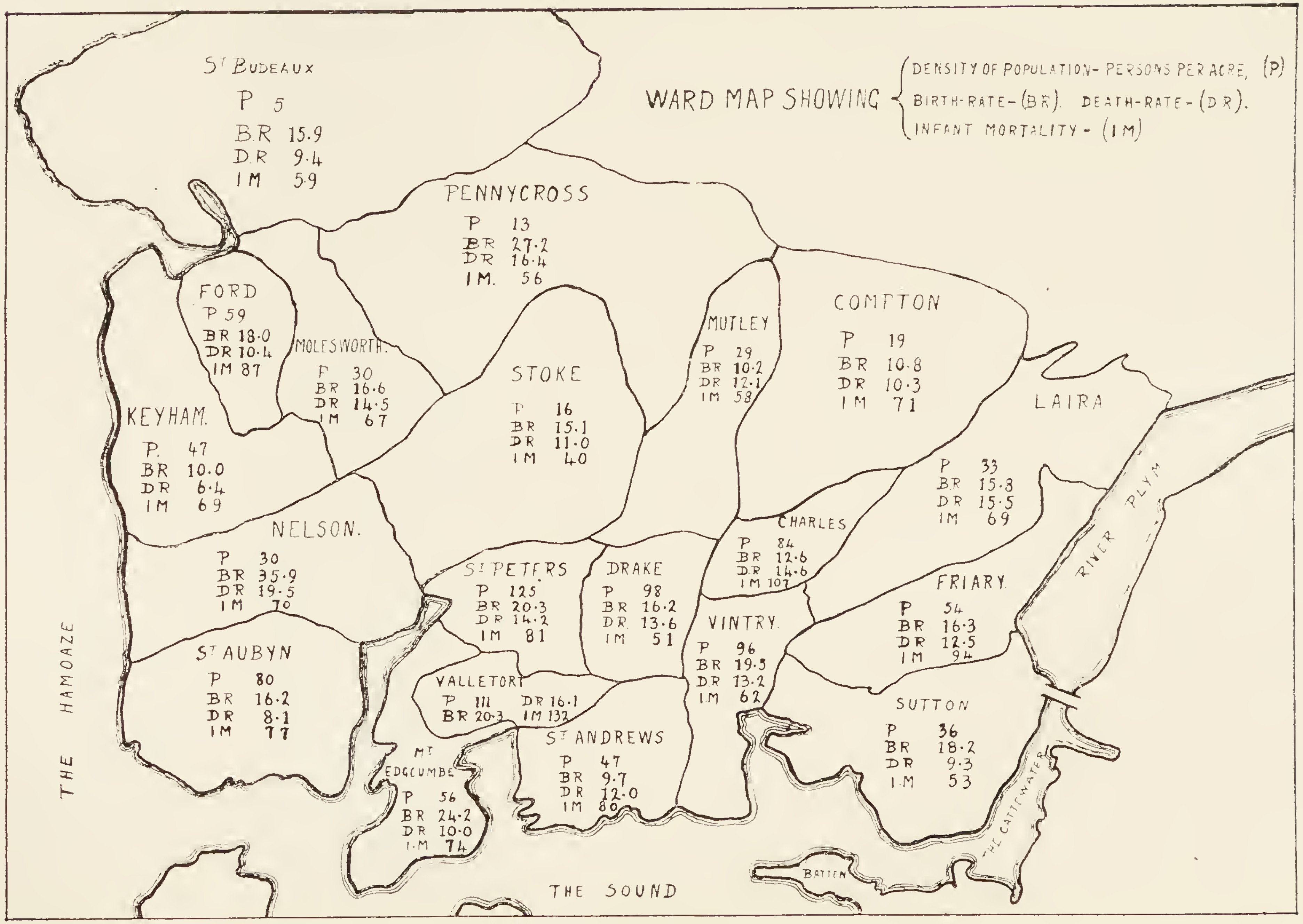
The execution of my duties brings me into contact with a number of officials whose assistance is invaluable ; indeed, without their co-operation it would scarcely be possible for me to carry out my duties. More especially am I indebted to the Naval Authorities, to the Officers of His Majesty's Customs, the Immigration Officers, Shipping Agents, the Staff of the Marine Biological Laboratory, Officials of the Great Western Railway and the Consular bodies for their invaluable assistance.

# LIST OF CHARTS.

A. Vital Statistics in Wards.
B. Infant Mortality, 1914–1928.
C. Birth-rate, Death-rate and Rate of Natural Increase, 1914–1928.
D. Deaths from Cancer, 1891–1928—variations from the average incidence.
E. Tuberculosis—Weekly numbers in Institutions.
F. Deaths from Tuberculosis, 1891–1928—variations from the average incidence.
G. Attendances at Tuberculosis Dispensaries, 1920–1928.

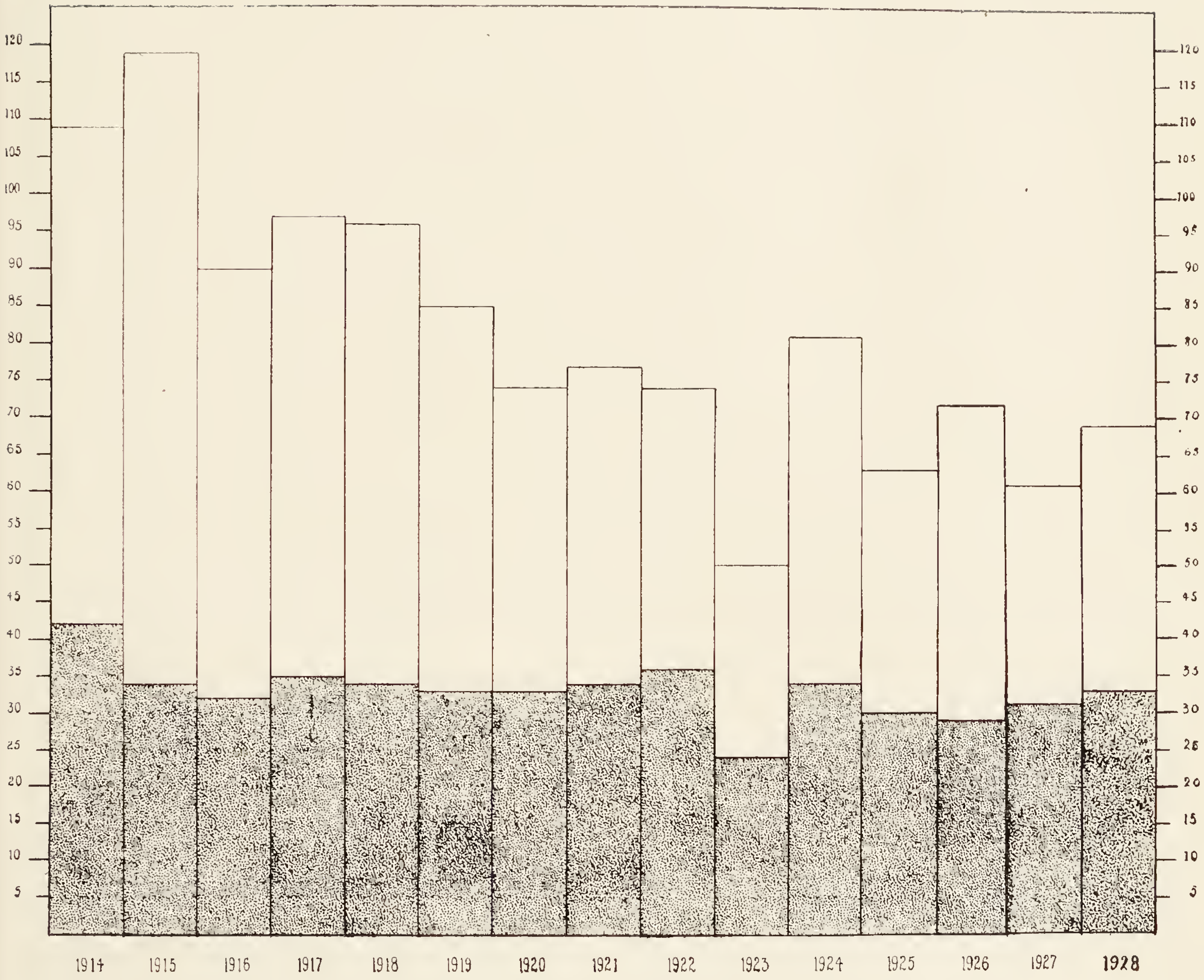
# CHART A.

## VITAL STATISTICS IN WARDS FOR 1928.


WARD MAP SHOWING
DENSITY OF POPULATION - PERSONS PER ACRE, (P)
BIRTH-RATE - (BR). DEATH-RATE - (DR).
INFANT MORTALITY - (IM)
ST BUDEAUX P 5 BR 15.9 DR 9.4 IM 5.9
PENNYCROSS P 13 BR 27.2 DR 16.4 IM. 56
FORD P 59 BR 18.0 DR 10.4 IM 87
MOLESWORTH. P 30 BR 16.6 DR 14.5 IM 67
STOKE P 16 BR 15.1 DR 11.0 IM 40
MUTLEY P 29 BR 10.2 DR 12.1 IM 58
COMPTON P 19 BR 10.8 DR 10.3 IM 71
LAIRA P 33 BR 15.8 DR 15.5 IM 69
KEYHAM. P. 47 BR 10.0 DR 6.4 IM 69
NELSON. P 30 BR 35.9 DR 19.5 IM 70
CHARLES P 84 BR 12.6 DR 14.6 IM 107
FRIARY P 54 BR 16.3 DR 12.5 IM 94
ST PETERS P 125 BR 20.3 DR 14.2 IM 81
DRAKE P 98 BR 16.2 DR 13.6 IM 51
VINTRY. P 96 BR 19.5 DR 13.2 IM 62
ST AUBYN P 80 BR 16.2 DR 8.1 IM 77
VALLETORT P 111 BR 20.3 DR 16.1 IM 132
ST ANDREWS P 47 BR 9.7 DR 12.0 IM 86
SUTTON P 36 BR 18.2 DR 9.3 IM 53
MT EDGCUMBE P 56 BR 24.2 DR 10.0 IM 74
RIVER PLYM
THE CATTEWATER
BATTEN
THE HAMOAZE
THE SOUND

## CHART B.

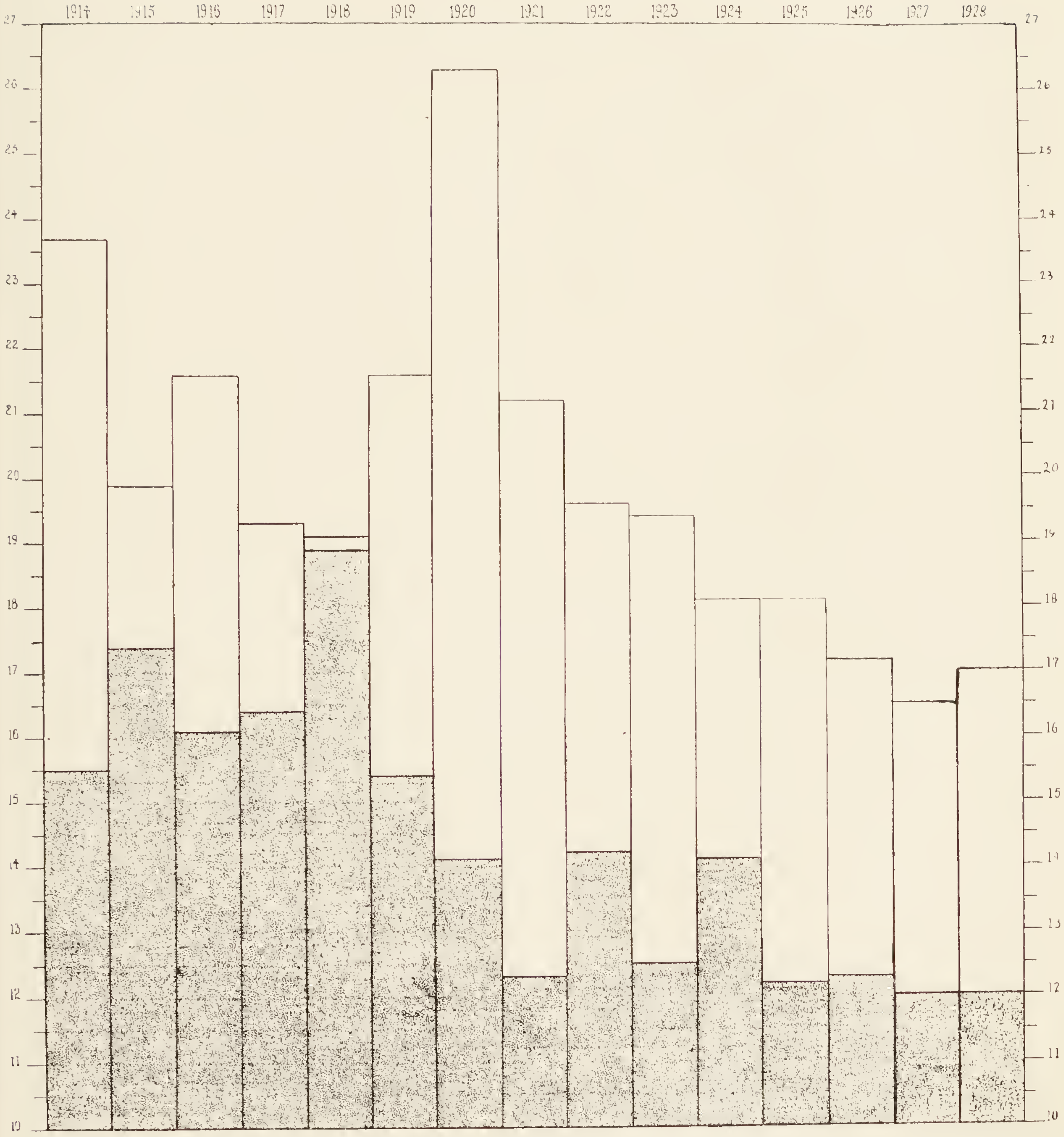
### INFANT MORTALITY, 1914—1928.



NOTE : The shaded portion shows the number of Deaths due to ante-natal causes per 1,000 births ; and the unshaded portion shows the Deaths due to post-natal influences. The total column shows the rate of infant mortality year by year.

## CHART C.

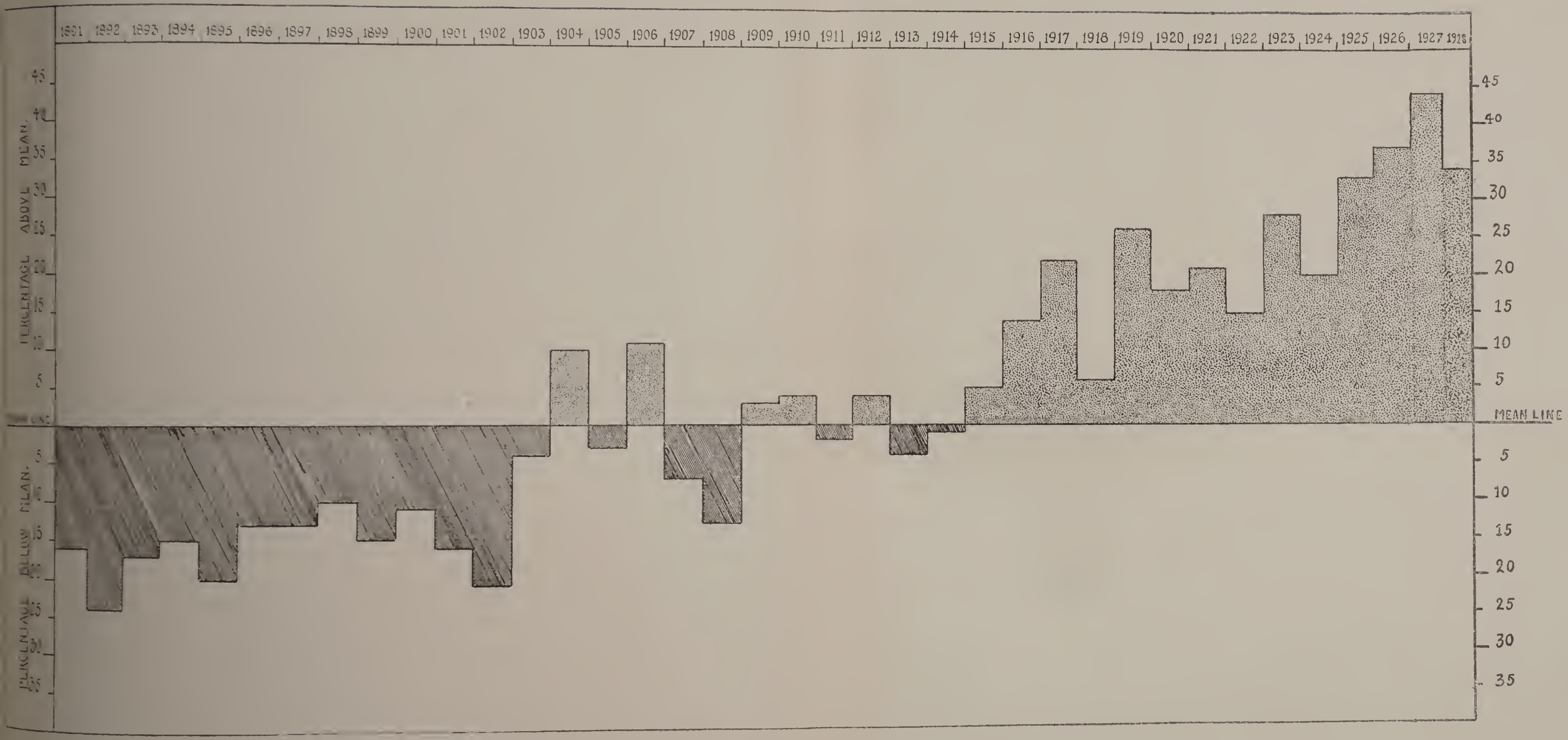
## BIRTH-RATE, DEATH-RATE AND RATE OF NATURAL INCREASE, 1914—1928.



NOTE: The Death-rates are shown by the shaded portion of the chart ; the rate of natural increase by the unshaded columns ; and the Birth-rate by the shaded *plus* the unshaded portions.

## CHART D.

### DEATHS FROM CANCER, 1891—1928.

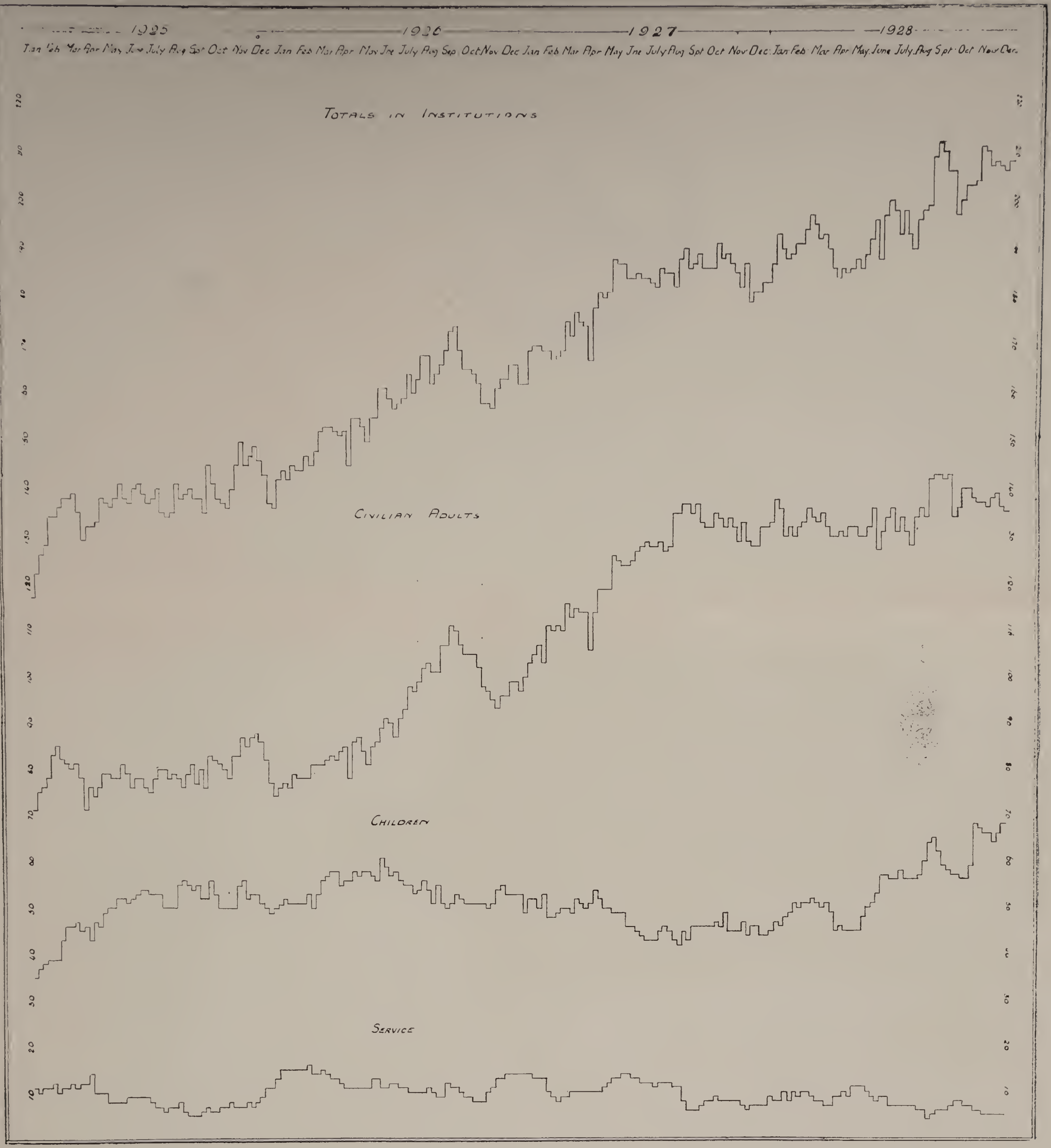


This Chart shows the variations from the average of Cancer Deaths.

The considerable percentage increase during recent years should be noted.

TUBERCULOSIS

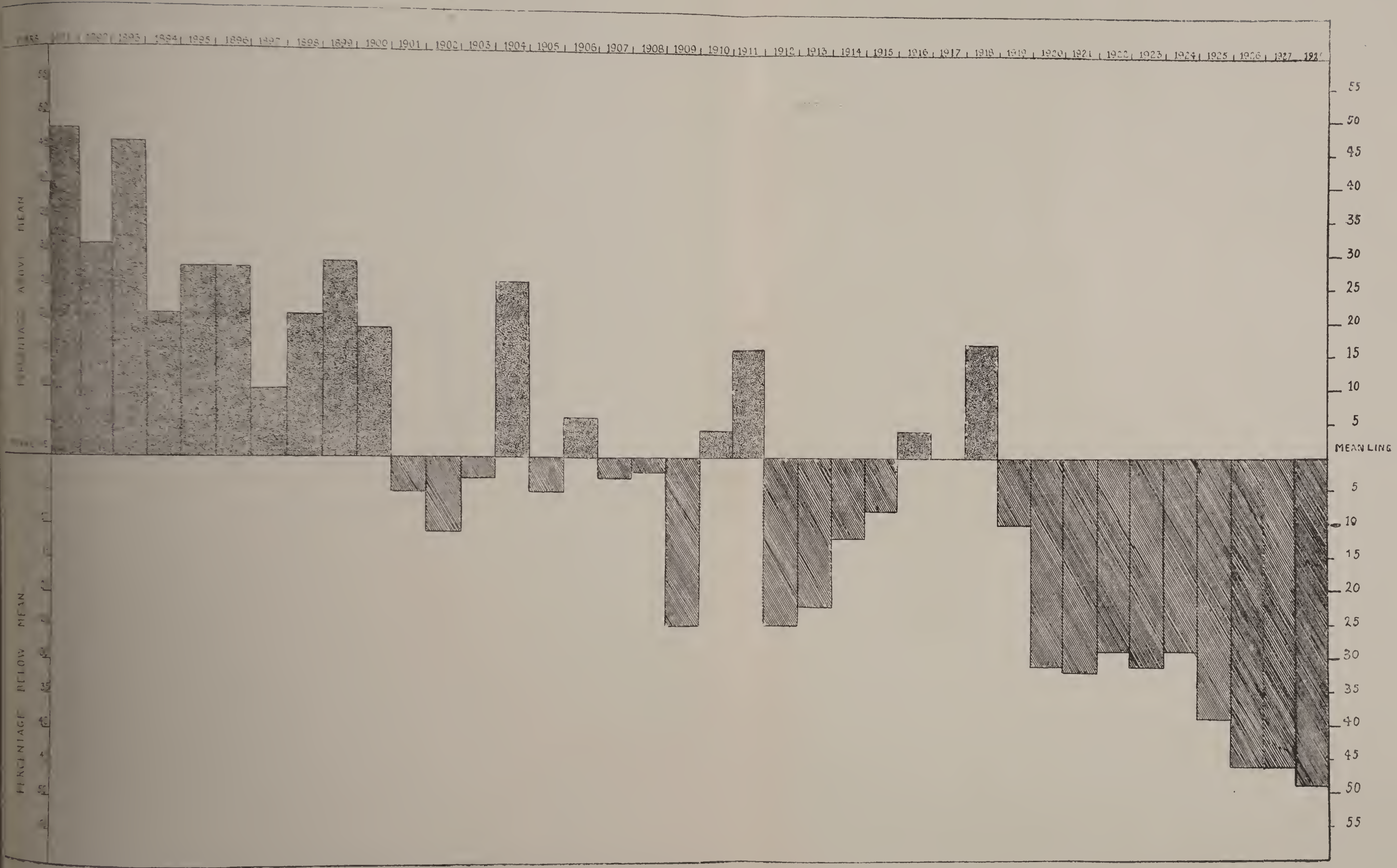
Chart showing weekly numbers and the classifications of Tuberculous persons in Institutions during 1925-1928.



COLLEGE OF SURGEONS
-3 JUN 29

## CHART F.

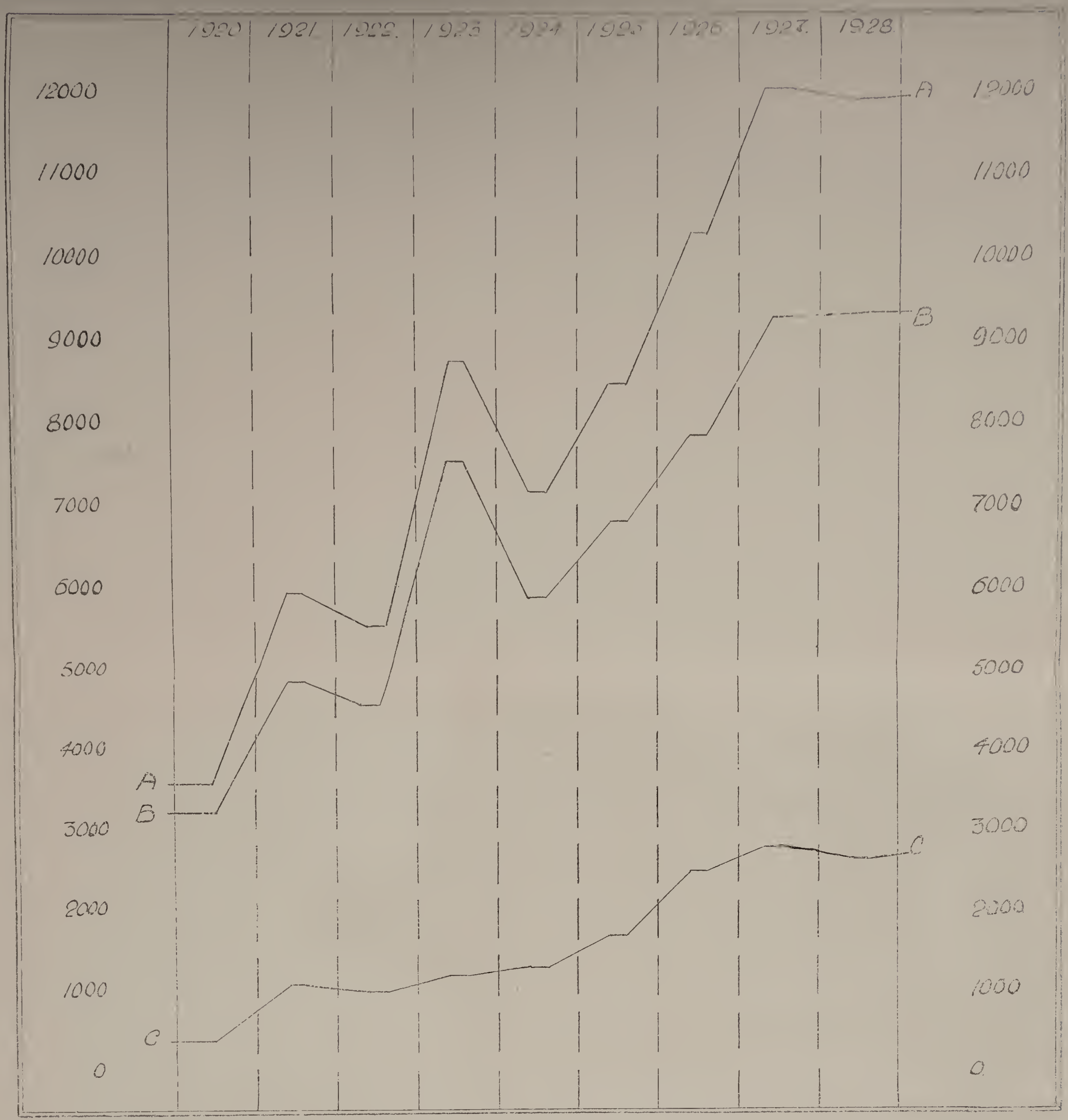
### DEATHS FROM TUBERCULOSIS (All Forms) 1891—1928.



NOTE: This Chart shows the percentage variations of Tuberculosis Deaths from the average.

The very marked percentage reduction of deaths from Tuberculosis during recent years should be noted.

Chart showing attendances at Dispensaries.



KEY :—

A—Total Attendances at Dispensaries.
B—Attendances at Beaumont House Main Dispensary.
C—Attendances at Royal Albert Hospital Sub-Dispensary.

## LIST OF TABLES.

Table 1. Plymouth Vital Statistics, 1914–1928.
,, 2. Deaths from all causes in 1928.
,, 3. Infant Mortality in 1928.
,, 4. Infectious Diseases notified during 1928.
,, 5. Work done at Maternity and Child Welfare Centres, 1928.
,, 6. Supervision of Midwives.
,, 7. Eye Inflammation in Babies.
,, 9. Deaths from Tuberculosis in 1928.
,, 10. Work at Tuberculosis Dispensaries, 1928.
,, 11. Plymouth Institutions for Tuberculosis.
,, 12. Tuberculosis—Results of Treatment, 1928.
,, 13. Sanitary Inspection of Plymouth, 1928.
,, 14. Samples taken under Sale of Food and Drugs Acts.
,, 15. Unsound Meat destroyed during 1928.
,, 16. Other Unsound Food destroyed during 1928.
,, 17. Inspection of Factories, etc., during 1928.
,, 18. Housing Statistics, 1928.
,, 19. Bacteriological Work done during the year 1928.
,, 20. Health Education Work.
,, 21. Elementary Schools Inspection in 1928.
,, 22. ,, ,, —Defects found on Inspection.
,, 23. ,, ,, —Children requiring treatment.
,, 24. ,, ,, —Exceptional children.
,, 25. ,, ,, —Defects treated during year.
,, 26. Secondary Schools Inspection in 1928.
,, 27. ,, ,, —Defects found on Inspection.
,, 28. ,, ,, —Pupils requiring Treatment.
,, 29. ,, ,, —Treatment of Defective Vision.
,, 30. ,, ,, —Treatment of Defects of Nose and Throat.

List of Tables—*continued.*

Table 31. Other Higher Schools Inspection in 1928.
,, 32. ,, ,, ,, —Defects found on Inspection.
,, 33. ,, ,, ,, —Scholars requiring treatment.
,, 34. ,, ,, ,, —Treatment of Defective Vision.
,, 35. ,, ,, ,, —Treatment of Defects of Nose and Throat.
,, 36. Bathing Pools.
,, 37. Medical Inspection of Aliens.
,, 38. Shipping entering Port of Plymouth, 1928.
,, 39. Port of Plymouth—Vessels Inspected.
,, 40. Summary of work for the year.
,, 41. Chief Ports with which Plymouth has Trade.
,, 42. Inspection of Foods at Port in 1928.
,, 43. Foods condemned at Port in 1928.
,, 44. Infectious Sickness dealt with during 1928.
,, 45. Infectious Sickness during the years 1923–1927.
,, 46. Rats destroyed at Port during 1928.
,, 47. Passenger Traffic during 1928.
,, 48. Fish Inspections.
,, 49. Bacteriological Examinations of Milk.

## TABLE 1.

## PLYMOUTH VITAL STATISTICS, 1914—1928.

| *Year.* | *Estimated Mid-year population.* | *Birth-rate per 1,000 population.* | *Death-rate per 1,000 population.* | *Infant Mortality per 1,000 Births.* |
|---|---|---|---|---|
| 1914 .. | 212,421 | 23.7 | 15.5 | 109 |
| 1915 .. | 187,911 | 19.9 | 17.4 | 119 |
| 1916 .. | 184,473 | 21.6 | 16.1 | 90 |
| 1917 .. | 179,375 | 19.3 | 16.4 | 96 |
| 1918 .. | 179,629 | 19.1 | 18.9 | 96 |
| 1919 .. | 181,967 | 21.6 | 15.4 | 85 |
| 1920 .. | 189,218 | 26.3 | 14.1 | 74 |
| 1921 .. | 199,360 | 21.2 | 12.3 | 77 |
| 1922 .. | 200,370 | 19.6 | 14.2 | 74 |
| 1923 .. | 211,500 | 19.4 | 12.5 | 50 |
| 1924 .. | 206,600 | 18.1 | 14.1 | 81 |
| 1925 .. | 211,078 | 18.1 | 12.1 | 63 |
| 1926 .. | 211,350 | 17.2 | 12.3 | 71 |
| 1927 .. | 211,650 | 16.5 | 12.0 | 61 |
| **1928** .. | **211,980** | **17.0** | **12.0** | **69** |
| 107 Great Towns during 1928 .. | | 16.9 | 11.6 | 70 |
| 156 Smaller Towns during 1928 .. | | 16.7 | 10.6 | 59 |
| England and Wales during 1928 .. | | 16.7 | 11.7 | 65 |

The Civilian population estimated for the Year 1928, by the Registrar General is 187,600.

TABLE 2. **DEATHS FROM ALL CAUSES, 1928.**

| Causes of Death. | Total. | Whether Uncertified. | Coroner's Inquiries. | Whether in Public Instns. | AGE DISTRIBUTION. | | | | | | | | | | | | | REGISTRATION WARDS. | | | | | | | | | | | | | | | | | | | | Totals. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Under 1 year. | 1—2 years. | 2—3 years. | 3—4 years. | 4—5 years. | Total under 5 years. | 5—10 years. | 10—15 years. | 15—25 years. | 25—35 years. | 35—45 years. | 45—65 years. | 65 and upwards. | Compton. | Mutley. | Pennycross. | Laira. | Charles. | Friary. | Sutton. | Vintry. | Drake. | St. Andrew's | St. Peter's | Valletort. | Mount Edgcumbe. | Molesworth. | St. Budeaux | Ford. | Nelson. | Keyham. | St. Aubyn. | Stoke. | |
| 1. Enteric fever .. .. .. | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | — | — | — | — | — | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 |
| 2. Smallpox .. .. .. .. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 3. Measles .. .. .. .. | 78 | — | — | 4 | 18 | 29 | 10 | 7 | 3 | 67 | 9 | 2 | — | — | — | — | — | 1 | — | 2 | 2 | 1 | 8 | 2 | 15 | 5 | 2 | 8 | 12 | 9 | 3 | 1 | 1 | 1 | 3 | 2 | — | 78 |
| 4. Scarlet fever .. .. .. | 2 | — | — | 2 | — | — | — | — | — | — | 2 | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | 1 | — | — | — | — | — | — | — | — | — | — | — | 2 |
| 5. Whooping Cough .. .. .. | 5 | — | — | — | 2 | 1 | 2 | — | — | 5 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 2 | — | 2 | — | 5 |
| 6. Diphtheria .. .. .. .. | 32 | — | 1 | 26 | — | — | 2 | 2 | 3 | 7 | 23 | 1 | — | — | 1 | — | — | 2 | 4 | 1 | 4 | — | 2 | — | — | 3 | — | 2 | 1 | 3 | 1 | 1 | 2 | 2 | — | 2 | 2 | 32 |
| 7. Influenza .. .. .. .. | 10 | — | — | 1 | 1 | — | — | — | 1 | 2 | — | 1 | 1 | — | — | 4 | 2 | — | — | 2 | — | 1 | — | — | 3 | — | 1 | 1 | — | — | — | — | — | — | — | 1 | 1 | 10 |
| 8. Encephalitis lethargica .. .. | 5 | — | 1 | 1 | — | 2 | — | — | — | 2 | — | — | 1 | — | 1 | 1 | — | — | — | 1 | — | — | 1 | — | — | — | 1 | — | — | — | — | — | — | 1 | — | 1 | — | 5 |
| 9. Meningococcal meningitis .. .. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 10. Tuberculosis of respiratory system | 159 | — | 5 | 52 | — | 1 | 1 | — | — | 2 | 2 | 2 | 40 | 34 | 25 | 40 | 14 | 2 | 5 | 11 | 6 | 14 | 10 | 4 | 9 | 12 | 4 | 16 | 10 | 7 | 9 | 3 | 11 | 10 | 6 | 9 | 1 | 159 |
| 11. Other tuberculous diseases .. | 32 | — | 1 | 15 | 1 | 3 | 1 | 2 | 1 | 8 | 7 | 6 | 3 | 4 | 1 | 2 | 1 | 2 | 3 | 1 | 1 | 4 | — | 2 | 2 | — | — | 2 | 3 | — | 5 | — | 2 | 1 | 2 | 2 | — | 32 |
| 12. Cancer, malignant disease .. | 322 | — | 3 | 75 | — | — | — | — | — | — | — | 1 | — | 2 | 27 | 140 | 152 | 7 | 11 | 20 | 31 | 23 | 13 | 10 | 16 | 23 | 15 | 23 | 11 | 10 | 16 | 9 | 11 | 13 | 17 | 27 | 16 | 322 |
| 13. Rheumatic fever .. .. .. | 9 | — | — | 3 | — | — | — | — | — | — | 2 | 2 | 3 | — | — | 1 | 1 | — | — | 1 | — | 1 | — | — | — | 1 | 1 | — | 3 | 2 | — | — | — | — | — | — | — | 9 |
| 14. Diabetes .. .. .. .. | 26 | — | 1 | 10 | — | — | — | — | — | — | 1 | — | — | — | 1 | 11 | 13 | — | 2 | 1 | 3 | 2 | 2 | 1 | 3 | 2 | — | 2 | 1 | — | — | 2 | 1 | 1 | 1 | — | 2 | 26 |
| 15. Cerebral hæmorrhage, etc. .. .. | 234 | — | 7 | 47 | — | — | — | — | — | — | — | — | 1 | — | 2 | 65 | 166 | 10 | 13 | 12 | 18 | 21 | 8 | 3 | 10 | 6 | 9 | 15 | 17 | 8 | 17 | 5 | 7 | 26 | 9 | 12 | 8 | 234 |
| 16. Heart disease .. .. .. | 283 | — | 39 | 44 | — | — | — | — | — | — | — | 1 | 3 | 4 | 10 | 114 | 151 | 12 | 10 | 16 | 16 | 18 | 8 | 11 | 15 | 21 | 13 | 19 | 16 | 4 | 18 | 3 | 11 | 17 | 19 | 25 | 11 | 283 |
| 17. Arterio-sclerosis .. .. .. | 75 | — | 9 | 25 | — | — | — | — | — | — | — | — | — | — | 3 | 20 | 52 | 4 | 4 | 5 | 7 | 4 | 4 | 4 | 3 | 3 | 7 | 2 | 4 | — | 3 | 1 | 1 | 6 | 3 | 7 | 3 | 75 |
| 18. Bronchitis .. .. .. .. | 251 | — | 3 | 27 | 23 | 8 | — | 1 | — | 32 | 1 | 2 | 2 | 3 | 5 | 44 | 162 | 4 | 4 | 8 | 9 | 12 | 20 | 17 | 17 | 22 | 9 | 19 | 13 | 25 | 7 | 6 | 6 | 20 | 5 | 21 | 7 | 251 |
| 19. Pneumonia (all forms) .. .. | 175 | — | 16 | 30 | 41 | 23 | 6 | 1 | 2 | 73 | 3 | 2 | 7 | 9 | 10 | 28 | 43 | 6 | 7 | 5 | 13 | 11 | 8 | 5 | 15 | 9 | 7 | 16 | 8 | 7 | 10 | 2 | 5 | 11 | 6 | 23 | 1 | 175 |
| 20. Other respiratory diseases .. | 10 | — | — | 2 | — | — | — | — | — | — | 1 | 1 | — | — | 1 | 3 | 4 | — | 1 | — | 2 | 2 | 1 | — | 1 | — | — | — | 1 | — | — | 1 | 1 | — | — | — | — | 10 |
| 21. Ulcer of stomach or duodenum .. | 18 | — | 1 | 9 | — | — | — | — | — | — | — | — | — | — | 4 | 9 | 5 | 1 | 1 | 1 | 1 | 4 | 1 | — | — | — | — | 2 | 3 | 2 | — | — | — | — | 2 | — | — | 18 |
| 22. Diarrhœa, etc. (under 2 years) .. | 17 | — | — | 2 | 15 | 2 | — | — | — | 17 | — | — | — | — | — | — | — | — | — | — | — | 1 | 2 | 1 | 2 | 2 | — | 1 | — | 3 | 2 | — | — | 1 | — | 2 | — | 17 |
| 23. Appendicitis and typhlitis .. | 17 | — | 1 | 14 | — | — | — | 1 | — | 1 | 5 | — | 1 | 2 | 4 | 3 | 1 | 1 | — | 1 | 1 | 1 | — | 4 | 2 | — | — | 1 | 1 | — | 3 | — | — | 1 | — | — | 1 | 17 |
| 24. Cirrhosis of liver .. .. .. | 11 | — | — | 4 | — | — | — | — | — | — | — | — | — | 1 | — | 7 | 3 | 1 | — | — | 1 | 1 | — | — | — | 1 | — | 1 | 1 | — | 2 | — | — | — | 1 | 1 | 1 | 11 |
| 25. Acute and chronic nephritis .. | 80 | — | 8 | 30 | 1 | — | — | — | — | 1 | 1 | — | 2 | 3 | 6 | 28 | 39 | 4 | 1 | 4 | 13 | 3 | 1 | 3 | 8 | 3 | 4 | 6 | 6 | 1 | 4 | 3 | 2 | 4 | 6 | 3 | 1 | 80 |
| 26. Puerperal sepsis .. .. .. | 5 | — | — | 4 | — | — | — | — | — | — | — | — | — | 3 | 2 | — | — | — | — | 3 | — | — | — | — | 1 | — | — | 1 | — | — | — | — | — | — | — | — | — | 5 |
| 27. Other accidents and diseases of pregnancy and parturition .. | 17 | — | 1 | 6 | — | — | — | — | — | — | — | — | — | 9 | 8 | — | — | — | 1 | 1 | 2 | — | 1 | — | 1 | 1 | 1 | — | 2 | 2 | — | — | 1 | — | 1 | 2 | 1 | 17 |
| 28. Congenital debility and malformation, premature birth .. .. | 110 | —<br>— | 2 | 10 | 110 | — | — | — | — | 110 | — | — | — | — | — | — | — | 3 | 2 | 8 | 7 | 4 | 8 | 2 | 5 | 2 | 6 | 7 | 12 | 6 | 4 | 3 | 8 | 6 | 5 | 9 | 3 | 110 |
| 29. Suicide .. .. .. .. | 22 | — | 22 | 2 | — | — | — | — | — | — | — | — | 1 | 2 | 3 | 15 | 1 | — | 1 | 1 | — | 1 | — | 1 | 4 | 1 | 1 | — | 3 | 1 | 2 | — | 1 | 1 | 2 | 1 | 1 | 22 |
| 30. Other violent deaths .. .. | 73 | — | 71 | 38 | 4 | 1 | 1 | 1 | 2 | 9 | 5 | 2 | 14 | — | 5 | 14 | 24 | 4 | 5 | 5 | 5 | 4 | 5 | 2 | 5 | 7 | 1 | 4 | 1 | 5 | 4 | 1 | 2 | 4 | 3 | 5 | 1 | 73 |
| 31. Other defined diseases .. .. | 470 | 1 | 27 | 169 | 34 | 6 | 4 | 3 | 2 | 49 | 8 | 3 | 20 | 18 | 27 | 102 | 243 | 12 | 18 | 21 | 24 | 36 | 27 | 29 | 32 | 27 | 21 | 40 | 28 | 16 | 26 | 11 | 24 | 22 | 19 | 19 | 18 | 470 |
| 32. Causes ill-defined or unknown .. | 2 | — | — | — | — | — | 1 | — | — | 1 | — | — | — | — | — | 1 | — | — | 1 | — | — | — | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 |
| Totals .. .. .. | 2,551 | 1 | 219 | 652 | 250 | 76 | 28 | 18 | 14 | 386 | 70 | 26 | 99 | 94 | 146 | 653 | 1,077 | 76 | 94 | 131 | 166 | 169 | 132 | 102 | 169 | 152 | 103 | 188 | 157 | 111 | 136 | 53 | 97 | 150 | 110 | 176 | 79 | 2,551 |

TABLE 3. **INFANT MORTALITY.**

**Net deaths from stated causes under 1 year of age during 1928.**

| *Causes of Death.* | Whether Un-certified. | Illegiti-mate. | | AGE DISTRIBUTION. | | | | | | | | | | REGISTRATION WARDS | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | M. | F. | Under 1 week. | 1—2 weeks. | 2—3 weeks. | 3—4 weeks. | Total under 1 month. | 1—3 months. | 3—6 months. | 6—9 months. | 9—12 months. | Total under 1 year. | Compton. | Mutley. | Penny-cross. | Laira. | Charles. | Friary. | Sutton. | Vintry. | Drake. | St. Andrew's | St. Peter's | Valletort. | Mount Edg-cumbe. | Moles-worth. | St. Budeaux. | Ford. | Nelson. | Keyham. | St. Aubyn. | Stoke. | Total. |
| Measles .. .. .. .. | — | — | — | — | — | — | — | — | — | 1 | 6 | 11 | 18 | 1 | — | — | — | 1 | 2 | — | 2 | 1 | — | 1 | 3 | 4 | 1 | — | — | 1 | 1 | — | — | 18 |
| Whooping Cough .. .. .. | — | — | — | — | — | — | — | — | — | — | — | 2 | 2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | — | 1 | — | 2 |
| Diphtheria .. .. .. .. | — | — | — | — | — | — | — | — | — | 1 | — | — | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | 1 |
| Influenza .. .. .. .. | — | — | — | — | — | — | 1 | 1 | — | — | — | — | 1 | — | — | — | — | — | — | — | 1 | — | — | — | — | — | — | — | — | — | — | — | — | 1 |
| Tuberculosis of nervous system .. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Tuberculosis of intestines and peritoneum .. .. .. | — | — | — | — | — | — | — | — | — | — | — | 1 | 1 | — | — | — | — | — | — | — | 1 | — | — | — | — | — | — | — | — | — | — | — | — | 1 |
| Other Tuberculous Diseases .. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Syphilis .. .. .. .. | — | 2 | 1 | — | 1 | 2 | — | 3 | 1 | — | — | — | 4 | — | 1 | — | — | — | — | — | — | — | — | — | 3 | — | — | — | — | — | — | — | — | 4 |
| Meningitis .. .. .. .. | — | — | — | — | — | — | 1 | 1 | — | — | — | — | 1 | — | — | — | — | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 |
| Convulsions .. .. .. | — | — | — | 3 | 1 | — | — | 4 | — | 1 | 2 | — | 7 | — | — | — | 1 | 2 | — | — | 1 | — | — | — | 1 | — | — | — | — | 2 | — | — | — | 7 |
| Bronchitis .. .. .. .. | — | — | — | 2 | 4 | 1 | 2 | 9 | 8 | 2 | 3 | 1 | 23 | — | — | — | — | 1 | 2 | 3 | 1 | 1 | — | 5 | 1 | 1 | — | — | 1 | 2 | 2 | 3 | — | 23 |
| Pneumonia .. .. .. .. | — | 3 | — | 1 | — | — | — | 1 | 6 | 12 | 6 | 16 | 41 | 1 | — | 1 | 1 | 3 | 1 | 2 | 1 | 2 | — | 5 | 5 | 1 | 3 | — | 1 | 3 | 2 | 9 | — | 41 |
| Other respiratory diseases .. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Inflammation of the stomach .. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Diarrhœa and enteritis .. .. | — | 1 | 2 | — | — | 1 | 1 | 2 | 4 | 5 | 1 | 3 | 15 | — | — | — | — | 1 | 2 | 1 | 2 | 2 | — | 1 | — | 2 | 1 | — | — | 1 | — | 2 | — | 15 |
| Hernia, intestinal obstruction .. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Congenital malformation .. .. | — | — | 1 | 3 | 1 | — | — | 4 | — | 1 | 1 | — | 6 | — | — | 1 | — | — | — | — | 1 | — | 1 | — | 1 | 1 | 1 | — | — | — | — | — | — | 6 |
| Congenital debility and sclerema .. | — | — | — | 11 | 1 | 3 | 3 | 18 | 8 | 1 | 1 | 1 | 29 | 2 | 1 | 1 | 1 | 2 | 1 | — | 1 | 1 | 3 | 1 | 2 | 3 | — | — | 1 | — | 2 | 4 | 3 | 29 |
| Icterus .. .. .. .. | — | — | — | — | 1 | — | — | 1 | — | — | — | — | 1 | — | — | — | — | — | — | — | — | — | 1 | — | — | — | — | — | — | — | — | — | — | 1 |
| Premature birth .. .. .. | — | 4 | 2 | 41 | 3 | 8 | 1 | 53 | 5 | 2 | — | — | 60 | 1 | 1 | 3 | 5 | 2 | 5 | 1 | 3 | 1 | 1 | 5 | 7 | 3 | 3 | 2 | 7 | 5 | 1 | 4 | — | 60 |
| Injury at birth .. .. .. | — | 1 | — | 7 | 1 | — | — | 8 | — | — | — | — | 8 | — | — | — | 1 | — | — | 1 | — | — | — | 1 | 1 | — | — | — | 1 | 1 | — | 2 | — | 8 |
| Disease of umbilicus .. .. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Ateleetasis .. .. .. .. | — | 1 | — | 5 | — | — | — | 5 | — | — | — | — | 5 | — | — | 2 | — | — | 1 | — | — | — | — | — | 1 | — | — | — | — | — | 1 | — | — | 5 |
| Suffocation in bed, or not stated how | — | — | — | 1 | — | — | — | 1 | 1 | — | — | — | 2 | — | — | — | — | — | — | — | — | 1 | — | — | — | — | — | — | — | — | 1 | — | — | 2 |
| Other Causes .. .. .. | — | 2 | — | 7 | 1 | 1 | 1 | 10 | 4 | 7 | 3 | 1 | 25 | — | 1 | 3 | 1 | 1 | 2 | 2 | 1 | — | — | 2 | — | 2 | 1 | 2 | 2 | 3 | 1 | 1 | — | 25 |
| Total .. .. .. | — | 14 | 6 | 81 | 14 | 16 | 10 | 121 | 37 | 33 | 23 | 36 | 250 | 5 | 4 | 11 | 10 | 14 | 16 | 10 | 15 | 9 | 6 | 21 | 25 | 17 | 10 | 5 | 13 | 18 | 11 | 26 | 4 | 250 |

TABLE 4.

## INFECTIOUS DISEASES NOTIFIED, 1928. WARD DISTRIBUTION.

| Disease. | Compton. | Mutley. | Pennycross. | Laira. | Charles. | Friary. | Sutton. | Vintry. | Drake. | St. Andrew's | St. Peter's | Valletort. | Mount Edgcumbe. | Molesworth. | St. Budeaux. | Ford. | Nelson. | Keyham. | St. Aubyn. | Stoke. | Totals. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Small-pox .. .. .. .. | — | — | — | — | — | — | 2 | 18 | 1 | — | 1 | 6 | — | — | — | — | — | — | — | — | 28 |
| Scarlet Fever .. .. .. | 2 | 2 | 10 | 4 | 16 | 4 | 13 | 9 | 4 | 2 | 11 | 11 | 7 | 19 | 1 | 11 | 12 | 9 | 14 | 6 | 167 |
| Diphtheria .. .. .. .. | 20 | 20 | 25 | 14 | 11 | 24 | 27 | 23 | 32 | 9 | 24 | 36 | 46 | 18 | 1 | 22 | 28 | 17 | 21 | 5 | 423 |
| Enteric or Typhoid .. .. | — | — | 1 | — | 1 | — | 1 | 1 | — | — | — | — | — | — | — | — | 1 | — | — | 1 | 6 |
| Pneumonia .. .. .. | 2 | 3 | 8 | 8 | 7 | 2 | 3 | 9 | 7 | 2 | 16 | 3 | — | 9 | 1 | 3 | 12 | 11 | 11 | 2 | 119 |
| Puerperal Fever .. .. .. | — | — | — | — | 2 | — | — | — | — | — | — | 1 | — | 4 | 1 | 1 | — | — | — | — | 9 |
| Puerperal Pyrexia .. .. | — | 1 | 2 | 1 | 4 | 3 | 1 | 2 | 2 | 1 | 2 | 2 | 6 | 3 | — | — | 15 | — | 3 | 1 | 49 |
| Cerebro-Spinal Fever .. .. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Acute Poliomyelitis .. .. | — | 1 | 2 | 2 | 1 | 2 | — | — | 1 | — | 1 | — | 1 | — | — | — | 1 | — | 1 | — | 13 |
| Acute Polio-encephalitis .. .. | — | 1 | — | — | — | 1 | — | — | — | 1 | — | — | — | — | — | — | — | — | — | — | 3 |
| Encephalitis Lethargica .. .. | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | — | — | 1 | — | 1 | — | 4 |
| Dysentery .. .. .. .. | 1 | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 |
| Ophthalmia Neonatorum .. | — | — | 1 | — | 1 | 2 | 1 | 2 | 1 | — | 1 | 2 | 2 | 2 | 1 | 2 | 4 | 2 | 3 | 1 | 28 |
| Erysipelas .. .. .. .. | 2 | 2 | 4 | 3 | 7 | 2 | 3 | 2 | — | 6 | 7 | — | 4 | 7 | — | 1 | 3 | 3 | 6 | 5 | 67 |
| Tuberculosis—Pulmonary .. | 12 | 9 | 17 | 10 | 21 | 17 | 19 | 19 | 31 | 13 | 24 | 21 | 13 | 19 | 5 | 19 | 15 | 16 | 20 | 5 | 325 |
| Non-Pulmonary .. | 5 | 5 | 3 | 7 | 7 | 5 | 4 | 3 | 4 | 2 | 9 | 7 | 6 | 10 | 3 | 6 | 9 | 7 | 9 | — | 111 |
| Malaria—Contracted Abroad .. | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | — | — | — | 1 | — | 2 |
| Chicken-pox .. .. .. | 57 | 26 | 65 | 94 | 25 | 43 | 42 | 60 | 31 | 33 | 46 | 56 | 105 | 47 | 20 | 27 | 51 | 31 | 78 | 4 | 941 |
| Infective Enteritis .. .. | — | — | — | 1 | — | 1 | 2 | 4 | 1 | — | 2 | 5 | 1 | — | — | 1 | 1 | — | 1 | 2 | 22 |
| Totals .. .. .. | 101 | 71 | 138 | 144 | 103 | 106 | 118 | 152 | 115 | 69 | 144 | 150 | 192 | 140 | 33 | 93 | 153 | 96 | 169 | 32 | 2319 |
| Attack rate per 10,000 population | 136.9 | 91.2 | 172.5 | 134.4 | 89.3 | 100.4 | 108.1 | 119.0 | 102.9 | 80.7 | 108.9 | 154.1 | 190.0 | 149.4 | 59.0 | 100.1 | 199.8 | 56.2 | 78.4 | 44.7 | 109.3 |

| Disease. | Plymouth. | Devonport. | Stonehouse. | Total Number of Cases Notified. | | | | Where Isolated. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1st Qr. | 2nd Qr. | 3rd Qr. | 4th Qr. | Mount Gold. | Swilly. | Other Institutions. | Nursing Homes. | Home Treated. | Lee Mill. | Naval and Military Cases. |
| Small-pox .. .. .. .. | 22 | — | 6 | — | — | 22 | 6 | — | — | — | — | — | 28 | — |
| Scarlet Fever .. .. .. | 79 | 77 | 11 | 41 | 34 | 35 | 57 | 136 | — | — | — | 31 | — | 1 |
| Diphtheria .. .. .. .. | 253 | 116 | 54 | 118 | 72 | 69 | 164 | 391 | — | — | 1 | 31 | — | 1 |
| Enteric or Typhoid .. .. | 3 | 3 | — | 3 | — | 2 | 1 | 1 | — | 1 | 2 | 2 | — | — |
| Pneumonia .. .. .. | 62 | 56 | 1 | 48 | 28 | 15 | 28 | — | — | 19 | — | 100 | — | 2 |
| Puerperal Fever .. .. .. | 3 | 6 | — | 5 | 2 | 2 | — | — | — | 6 | — | 3 | — | — |
| Puerperal Pyrexia .. .. | 21 | 22 | 6 | 10 | 11 | 8 | 20 | — | — | 19 | 13 | 17 | — | — |
| Cerebro-Spinal Fever .. .. | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Acute Poliomyelitis .. .. | 8 | 5 | — | 1 | 4 | 6 | 2 | — | — | 6 | — | 7 | — | — |
| Acute Polio-encephalitis .. .. | 2 | 1 | — | — | — | 2 | 1 | — | — | 1 | 1 | 1 | — | — |
| Encephalitis Lethargica .. .. | — | 4 | — | — | 2 | 1 | 1 | — | — | 2 | — | 2 | — | — |
| Dysentery .. .. .. .. | 2 | — | — | 1 | — | 1 | — | — | — | 1 | 1 | — | — | — |
| Ophthalmia Neonatorum .. | 9 | 17 | 2 | 8 | 5 | 9 | 6 | — | — | 8† | 2 | 18 | — | — |
| Erysipelas .. .. .. .. | 35 | 27 | 5 | 23 | 10 | 11 | 23 | — | — | 7 | — | 60 | — | 1 |
| Tuberculosis—Pulmonary .. | 207 | 99 | 19 | 83 | 89 | 82 | 71* | — | — | — | — | — | — | — |
| Non-Pulmonary .. | 57 | 44 | 10 | 46 | 30 | 13 | 22* | — | — | — | — | — | — | — |
| Malaria—Contracted Abroad .. | — | 1 | 1 | — | — | — | 2 | — | — | — | — | 2 | — | — |
| Chicken-pox .. .. .. | 525 | 289 | 127 | 172 | 190 | 154 | 425 | — | — | 2 | 2 | 937 | — | — |
| Infective Enteritis .. .. | 13 | 7 | 2 | — | 1 | 13 | 8 | — | 1 | — | — | 21 | — | — |
| Totals .. .. .. | 1301 | 774 | 244 | 559 | 478 | 445 | 837 | 528 | 1 | 72 | 22 | 1232 | 28 | 5 |
| Attack rate per 10,000 population | — | — | — | | | | | | | | | | | |

* See separate Table.

† 4 In-patients. 4 Out-patients.

Cases were admitted to Mount Gold Hospital from outside the City as follows :—

| | *Diphtheria.* | *Scarlet Fever.* | *Measles.* | *Typhoid.* | *Diagnosis Disproved.* |
|---|---|---|---|---|---|
| Plympton .. .. .. | 21 | 4 | — | 1 | 3 |
| Kingsbridge .. .. | 1 | — | — | — | — |
| Ivybridge .. .. | 1 | — | — | — | — |
| Tavistock .. .. | — | 4 | — | — | — |
| Torpoint .. .. .. | 2 | 1 | 2 | — | — |
| St. Austell .. .. | — | 1 | — | — | — |
| Military Cases .. .. | 9 | 2 | — | — | — |
| | 34 | 12 | 2 | 1 | 3 |

The following cases admitted to Hospital as Diphtheria were subsequently diagnosed as follows :—

| | | |
|---|---|---|
| Bronchitis .. .. .. .. | 2 | |
| Pneumonia .. .. .. .. | 1 | |
| Broncho-Pneumonia .. .. .. | 1 | |
| Tonsillitis .. .. .. .. | 63 | 80 |
| Quinsey .. .. .. .. | 1 | |
| Spasmodic Croup .. .. .. | 8 | |
| Rhinitis .. .. .. .. | 1 | |
| German Measles .. .. .. | 3 | |
| Return cases .. .. .. .. | 4 | |
| Outside cases, disproved diagnosis .. | 3 | |

DIPHTHERIA : 1,372 " negative " results were obtained from Diphtheria contacts and 19 " positive " results, 16 of these were removed to Mount Gold, 2 were diagnosed as Otorrhœa and 2 as Tonsillitis.

One case of Diphtheria was re-admitted to Hospital and one case notified after the death of patient.

SCARLET FEVER : One case was re-diagnosed as Tonsillitis. One case re-admitted to Hospital and there was one " return " case.

TABLE 5.

## MATERNITY AND CHILD WELFARE WORK DONE DURING THE YEAR 1928.

| *Nature of Work.* | *Town Hall, Stonehouse.* | | *Beaumont Hut.* | | *St. Aubyn Street.* | | *Albert Road.* | | *Wolseley Hall.* | | *Totals.* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Sessions held .. .. | 147 | | 149 | | 50 | | 51 | | 51 | | 448 | |
| Number of Ante-natal Sessions held .. | 50 | | 50 | | 50 | | — | | 52 | | 202 | |
| 1st Attendances .. .. | 254 | | 189 | | 150 | | — | | 77 | | 670 | |
| Re-attendances .. .. | 365 | | 381 | | 213 | | — | | 234 | | 1,193 | |
| Total .. ... .. | 619 | | 570 | | 363 | | — | | 311 | | 1,863 | |
| Number of Babies entered on Register during year .. .. .. | 1,233 | | 1,238 | | 453 | | 316 | | 459 | | 3,699 | |
| Number of Babies seen by Doctor .. | 3,083 | | 3,605 | | 1,031 | | 861 | | 1,061 | | 9,641 | |
| Number of Babies weighed .. .. | 11,432 | | 8,706 | | 3,261 | | 2,258 | | 2,901 | | 28,558 | |
| Children Normal—general advice given | 848 | | 580 | | 190 | | 155 | | 249 | | 2,022 | |
| Suffering from incorrect feeding .. | 79 | | 81 | | 17 | | 9 | | 23 | | 209 | |
| Difficult Nutrition .. .. .. | 37 | | 64 | | 17 | | 11 | | 8 | | 137 | |
| Suffering from Rickets .. .. | 124 | | 33 | | 20 | | 8 | | 14 | | 199 | |
| Suffering from Wasting .. .. | 2 | | 7 | | 1 | | — | | — | | 10 | |
| Suffering from other Diseases .. | 145 | | 288 | | 111 | | 39 | | 128 | | 711 | |
| Referred to own private doctors .. | 50 | | 100 | | 19 | | 7 | | 12 | | 188 | |
| Referred to Hospitals .. .. .. | 65 | | 85 | | 48 | | 26 | | 25 | | 249 | |
| Treated by Ultra-violet Rays—Sessions held .. .. | 196 | | — | | — | | — | | — | | 196 | |
| 1st Attendances .. .. | 104 | | — | | — | | — | | — | | 104 | |
| Re-attendances .. .. | 2,245 | | — | | — | | — | | — | | 2,245 | |
| Health Talks given by Nurses .. | 18 | | 1 | | — | | 1 | | 1 | | 21 | |
| Sewing parties held .. .. .. | 92 | | 94 | | — | | — | | — | | 186 | |
| Mothers attending Sewing Classes .. | 1.074 | | 678 | | — | | — | | — | | 1,752 | |
| | *First visits.* | *Total visits.* | *First visits.* | *Total visits.* | *First visits.* | *Total visits.* | *First visits.* | *Total visits.* | *First visits.* | *Total visits.* | *First visits.* | *Total visits.* |
| Visits paid by Nurses to expectant Mothers .. .. .. .. | 1,179 | 2,239 | 73 | 148 | 62 | 78 | 37 | 108 | 141 | 178 | 1,492 | 2,751 |
| Visits to Infants under one year .. | 1,006 | 3,559 | 781 | 3,433 | 407 | 2,666 | 578 | 2,369 | 449 | 1,731 | 3,221 | 13,758 |
| Visits to Children aged 1–5 years .. | 87 | 5,729 | 67 | 3,419 | 11 | 1,153 | 60 | 4,233 | — | 3,552 | 225 | 18,086 |
| Miscellaneous .. ... .. .. | — | 971 | — | 255 | — | 142 | — | 262 | — | 201 | — | 1,831 |
| Visits to Smallpox Contacts .. .. | — | 213 | — | 4,219 | — | — | — | — | — | — | — | 4,432 |
| Attendances at Clinics .. .. .. | — | 809 | — | 451 | — | 100 | — | 167 | — | 245 | — | 1,772 |
| Total Visits paid by Nurses .. .. | 2,272 | 13,520 | 921 | 11,925 | 480 | 4,139 | 675 | 7,139 | 590 | 5,907 | 4,938 | 42,630 |

NOTE.—In addition to the above, the following services were provided during the year :—

| | | | |
|---|---|---|---|
| Total amount of Ambrosia sold .. | 4,656 lbs. | Distributed free .. | 15,247 lbs. |
| ,, ,, Virol ,, .. | 445 lbs. | ,, ,, .. | 1,841 lbs. |
| ,, ,, Cows' milk ,, .. | 147 gals. | ,, ,, .. | 2,977 gals. |
| Dressings supplied .. .. .. .. .. .. .. .. | | | 588 |
| Medicines supplied .. .. .. .. .. .. .. .. | | | 5,304 |
| Lotions, Tablets, Ointments, Powder, Vaseline .. .. .. .. | | | 2,814 |
| Maternity Bags lent .. .. .. .. .. .. .. .. | | | 23 |

## TABLE 6.

## SUPERVISION OF MIDWIVES.

---

*Supervision of Midwives—*

| | |
|---|---|
| Number of Midwives on Register | 97 |
| ,, ,, in Private Practise | 36 |
| ,, ,, attached to Nursing Homes | 61 |
| Number of visits of inspection made | 140 |
| Number of Medical Help Forms sent by Midwives | 718 |

*Breaches of rules of the Central Midwives' Board :—*

| | |
|---|---|
| 1. Lack of cleanliness in bags and appliances | 3 |
| 2. Appliances broken or unfit for use | — |
| 3. Lack of cleanliness in home | 3 |
| 4. Failure to keep temperature records correctly | 6 |
| 5. Failure to notify cases of discharging eyes | 21 |
| 6. Failure to notify that Medical assistance was obtained | 5 |
| 7. Failure to notify that artificial feeding was advised | 26 |

## TABLE 7.

## OPHTHALMIA NEONATORUM, 1928.

| *No. Notified.* | *Where Treated* | | | | *Vision un-impaired.* | *Vision im-paired.* | *Total blind-ness.* | *Deaths.* |
|---|---|---|---|---|---|---|---|---|
| | *Home.* | *Nursing Homes.* | *Hospital* **(South Devon).** | | | | | |
| | | | *In-patients* | *Out-patients* | | | | |
| 28 | 18 | 2 | 4 | 4 | 28 | — | — | — |

In addition to the above notified cases, there were 6 Out-patients and 3 In-patients treated at the South Devon Hospital, one of the latter being discharged with vision slightly impaired.

TABLE 9.

## SHOWING THE AGE AND SEX OF DEATHS AND NEW CASES OF TUBERCULOSIS—1928.

| *Age Periods.* | *New cases.* | | | | *Deaths.* | | | |
|---|---|---|---|---|---|---|---|---|
| | *Pulmonary.* | | *Non-pulmonary.* | | *Pulmonary.* | | *Non-pulmonary.* | |
| | *M.* | *F.* | *M.* | *F.* | *M.* | *F.* | *M.* | *F.* |
| 0 to 1 year | — | — | 2 | 1 | — | — | 1 | — |
| 1 ,, 5 years | 1 | 1 | 14 | 8 | 1 | 1 | 3 | 4 |
| 5 ,, 10 ,, | 14 | 11 | 12 | 10 | 2 | — | 5 | 2 |
| 10 ,, 15 ,, | 9 | 16 | 3 | 7 | — | 2 | 3 | 3 |
| 15 ,, 20 ,, | 22 | 14 | 5 | 6 | 7 | 11 | 1 | 1 |
| 20 ,, 25 ,, | 30 | 27 | 3 | 6 | 9 | 13 | 1 | — |
| 25 ,, 35 ,, | 28 | 38 | 7 | 7 | 18 | 14 | 2 | 2 |
| 35 ,, 45 ,, | 32 | 20 | 6 | 7 | 12 | 15 | — | — |
| 45 ,, 55 ,, | 25 | 11 | 1 | 2 | 22 | 4 | 1 | 2 |
| 55 ,, 65 ,, | 9 | 7 | 1 | 1 | 7 | 7 | — | — |
| 65 and upwards | 5 | 5 | 1 | 1 | 8 | 6 | 1 | — |
| TOTALS .. | 175 | 150 | 55 | 56 | 86 | 73 | 18 | 14 |

TABLE 10.

## RETURN SHOWING THE WORK OF THE TUBERCULOSIS DISPENSARIES DURING THE YEAR 1928.

| *Diagnosis.* | *Pulmonary.* | | | | *Non-Pulmonary.* | | | | *Total.* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Adults.* | | *Children.* | | *Adults.* | | *Children.* | | *Adults.* | | *Children.* | |
| | *M.* | *F.* | *M.* | *F.* | *M.* | *F.* | *M.* | *F.* | *M.* | *F.* | *M.* | *F.* |
| A.—New Cases examined during the year (excluding contacts) :— | | | | | | | | | | | | |
| (*a*) Definitely tuberculous .. .. | 118 | 104 | 6 | 11 | 9 | 20 | 4 | 8 | 127 | 124 | 10 | 19 |
| (*b*) Doubtfully tuberculous.. .. | — | — | — | — | — | — | — | — | 20 | 34 | 15 | 21 |
| (*c*) Non-tuberculous .. .. | — | — | — | — | — | — | — | — | 49 | 66 | 30 | 37 |
| B.—Contacts examined during the year | | | | | | | | | | | | |
| (*a*) Definitely tuberculous .. .. | 2 | 12 | 6 | 4 | — | — | — | 1 | 2 | 12 | 6 | 5 |
| (*b*) Doubtfully tuberculous .. | — | — | — | — | — | — | — | — | 6 | 8 | 15 | 13 |
| (*c*) Non-tuberculous .. .. | — | — | — | — | — | — | — | — | 59 | 93 | 283 | 301 |
| C.—Cases written off the Dispensary Register as | | | | | | | | | | | | |
| (*a*) Cured .. .. .. .. | 32 | 4 | 2 | 3 | 4 | 6 | 10 | 2 | 36 | 10 | 12 | 5 |
| (*b*) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error) .. | — | — | — | — | — | — | — | — | 127 | 179 | 345 | 359 |
| D.—Number of Persons on Dispensary Register on December 31st :— | | | | | | | | | | | | |
| (*a*) Diagnosis completed .. .. | 375 | 284 | 121 | 113 | 44 | 49 | 67 | 45 | 419 | 333 | 188 | 158 |
| (*b*) Diagnosis not completed .. | — | — | — | — | — | — | — | — | 9 | 22 | 5 | 7 |

| | |
|---|---|
| 1. Number of persons on Dispensary Register on January 1st .. .. | 1,153 |
| 2. Number of patients transferred from other areas and of "lost sight of" cases returned .. .. | 25 |
| 3. Number of patients transferred to other areas and cases "lost sight of" .. .. .. .. | 206 |
| 4. Died during the year .. .. .. | 113 |
| 5. Number of observation cases under A (*b*) and B (*b*) above in which period of observation exceeded 2 months .. .. .. .. | 29 |
| 6. Number of attendances at the Dispensary (including Contacts) .. | 11,862 |
| 7. Number of attendances of non-pulmonary cases at Orthopædic out-stations for treatment or supervision .. .. .. | — |
| 8. Number of attendances, at General Hospitals or other Institutions approved for the purpose, of patients for | |
| (*a*) "Light" treatment .. .. | 41 |
| (*b*) Other special forms of treatment .. .. .. .. | — |
| At Dispensary :— | |
| Injections .. .. .. .. | 1,064 |
| Of Larynx .. .. .. .. | 238 |

| | |
|---|---|
| 9. Number of patients to whom Dental Treatment was given, at or in connection with the Dispensary | 73 |
| 10. Number of consultations with medical practitioners :— | |
| (*a*) At Homes of Applicants .. | 48 |
| (*b*) Otherwise .. .. .. | 429 |
| 11. Number of other visits by Tuberculosis Officers to Homes .. | 472 |
| 12. Number of visits by Nurses or Health Visitors to Homes for Dispensary purposes .. .. .. | 11,960 |
| 13. Number of | |
| (*a*) Specimens of sputum, &c., examined :— | |
| For T.M.O. .. .. .. | 1,684 |
| For G. P's. .. .. .. | 648 |
| (*b*) X-ray examinations made in connection with Dispensary work | 360 |
| (*c*) Von Pirquet Tests .. .. | 241 |
| 14. Number of Insured Persons on Dispensary Register on the 31st December .. .. .. | 598 |
| 15. Number of Insured Persons under Domiciliary Treatment on the 31st December .. .. .. | 59 |
| 16. Number of reports received during the year in respect of Insured Persons :— | |
| (*a*) Form G.P. 17 .. .. .. | 215 |
| (*b*) Form G.P. 36 .. .. .. | 89 |

## TABLE 11.

### (A) Average Number of Beds available for Plymouth Patients in Institutions during the Year 1928.

| | *Observation.* | *Pulmonary Tuberculosis* | | *Non-Pulmonary Tuberculosis.* | | *Total.* |
|---|---|---|---|---|---|---|
| | | *" Sanatorium " Beds.* | *" Hospital " Beds.* | *Disease of Bones and Joints* | *Other Conditions.* | |
| Adult Males .. .. .. | 1 | 30 | 44 | 9 | 1 | 85 |
| Adult Females .. .. | 1 | 33 | 24 | 4 | 1 | 63 |
| Children under 15 .. .. | 1 | 31 | 5 | 17 | 2 | 56 |
| TOTAL .. .. | 3 | 94 | 73 | 30 | 4 | 204 |

### (B) Return showing the Extent of Residential Treatment during the Year 1928.

| | | | *In Institutions on Jan. 1.* | *Admitted during the year.* | *Discharged during the year.* | *Died in the Institutions.* | *In Institutions on Dec. 31* |
|---|---|---|---|---|---|---|---|
| Number of Patients .. | Adults | *M.* | 76 | 157 | 138 | 21 | 74 |
| | | *F.* | 56 | 136 | 115 | 15 | 62 |
| | Children | *M.* | 30 | 49 | 38 | — | 41 |
| | | *F.* | 14 | 42 | 26 | 2 | 28 |
| Number of Observation Cases .. .. .. | Adults | *M.* | — | 2 | 2 | — | — |
| | | *F.* | 1 | 6 | 5 | — | 2 |
| | Children | *M.* | — | 1 | 1 | — | — |
| | | *F.* | — | 1 | 1 | — | — |
| | Total .. | | 177 | 394 | 326 | 38 | 207 |

TABLE 12.

## RETURN SHOWING THE IMMEDIATE RESULTS OF TREATMENT OF PATIENTS AND OF OBSERVATION OF DOUBTFUL CASES DISCHARGED FROM RESIDENTIAL INSTITUTIONS DURING THE YEAR 1928.

| *Classification on admission to the Institution.* | | *Condition at time of discharge.* | *Duration of Residential Treatment in the Institution.* | | | | | | | | | | | | *Total.* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | *Under 3 months.* | | | *3–6 months.* | | | *6–12 months.* | | | *More than 12 months.* | | | |
| | | | *M.* | *F.* | *Ch.* | *M.* | *F.* | *Ch.* | *M.* | *F.* | *Ch.* | *M.* | *F.* | *Ch.* | |
| *Pulmonary Tuberculosis.* | *Class T.B. minus.* | Quiescent .. .. .. | 1 | — | 1 | 4 | 1 | 2 | 5 | 5 | 9 | 1 | 1 | — | 30 |
| | | Improved .. .. .. | 11 | 12 | 4 | 5 | 10 | 6 | 2 | 6 | 10 | 1 | 2 | 2 | 71 |
| | | No material improvement .. | 4 | 11 | 1 | — | 2 | — | 1 | — | 1 | — | — | — | 20 |
| | | Died in Institution .. .. | — | 1 | 1 | — | — | — | — | — | — | 1 | — | — | 3 |
| | *Class T.B. plus. Group 1.* | Quiescent .. .. .. | 2 | 1 | — | 1 | — | — | 1 | — | — | — | — | — | 5 |
| | | Improved .. .. .. | 1 | — | — | 2 | 1 | 1 | — | 1 | 1 | — | 2 | 1 | 10 |
| | | No material improvement .. | 1 | 3 | — | — | — | — | 1 | — | — | — | — | — | 5 |
| | | Died in Institution .. .. | — | 1 | — | — | — | — | — | — | — | — | — | — | 1 |
| | *Class T.B. plus. Group 2.* | Quiescent .. .. .. | — | — | — | 2 | — | — | 2 | — | — | — | — | — | 4 |
| | | Improved .. .. .. | 13 | 9 | — | 11 | 7 | — | 13 | 7 | — | 3 | 3 | — | 66 |
| | | No material improvement .. | 5 | 7 | — | 5 | 5 | — | 2 | 4 | — | 2 | — | — | 30 |
| | | Died in Institution .. .. | 8 | 6 | — | 1 | 1 | — | — | — | — | — | — | — | 16 |
| | *Class T.B. plus. Group 3.* | Quiescent .. .. .. | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | | Improved .. .. .. | 1 | 1 | — | 3 | — | — | 1 | — | — | 2 | — | — | 8 |
| | | No material improvement .. | 2 | 1 | — | 2 | 2 | — | 2 | 1 | — | — | — | — | 10 |
| | | Died in Institution .. .. | 5 | 3 | — | 3 | — | — | 1 | 1 | 1 | 2 | — | — | 16 |
| *Non-Pulmonary Tuberculosis.* | *Bones and Joints.* | Quiescent or Arrested .. | 10 | 5 | 2 | — | — | 5 | 1 | — | 1 | 5 | — | 4 | 33 |
| | | Improved .. .. .. | 2 | 3 | 1 | — | — | 2 | — | 1 | — | — | — | 2 | 11 |
| | | No material improvement .. | 1 | — | 1 | — | — | — | — | — | — | — | — | — | 2 |
| | | Died in Institution .. .. | — | — | — | — | — | — | — | — | — | — | 1 | — | 1 |
| | *Abdominal.* | Quiescent or Arrested .. | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | | Improved .. .. .. | — | — | 2 | — | — | — | — | — | — | — | — | — | 2 |
| | | No material improvement .. | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | | Died in Institution .. .. | — | 1 | — | — | — | — | — | — | — | — | — | — | 1 |
| | *Other Organs.* | Quiescent or Arrested .. | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | | Improved .. .. .. | 1 | — | — | — | — | — | — | — | — | — | — | — | 1 |
| | | No material improvement .. | — | — | — | — | — | — | — | — | — | 1 | — | — | 1 |
| | | Died in Institution .. .. | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | *Peripheral Glands.* | Quiescent or Arrested .. | — | 1 | 1 | — | — | — | — | — | — | — | — | — | 2 |
| | | Improved .. .. .. | 2 | — | 4 | — | — | — | — | — | — | — | — | — | 6 |
| | | No material improvement .. | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | | Died in Institution .. .. | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | | | *Under 1 week.* | | | *1–2 weeks.* | | | *2–4 weeks.* | | | *More than 4 weeks.* | | | |
| *Observation for purpose of diagnosis.* | | Tuberculous .. .. .. | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | | Non-tuberculous .. .. | 1 | — | — | — | 1 | — | 1 | 3 | — | — | 1 | 2 | 9 |
| | | Doubtful .. .. .. | — | — | — | — | — | — | — | — | — | — | — | — | — |

# TABLE 12A.

## PULMONARY TUBERCULOSIS.

Annual Return showing in summary form the condition of all Patients whose case records are in the possession of the Dispensaries at the end of 1928, arranged according to the years in which the patients first came under Public Medical Treatment for pulmonary tuberculosis, and their classification as shown on Form A.

| Condition at the time of the last record made during the year to which the Return relates. | | | Previous to 1926. | | | | | 1926. | | | | | 1927. | | | | | 1928. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Class T.B. minus. | Class T.B. plus. | | | | Class T.B. minus. | Class T.B. plus. | | | | Class T.B. minus. | Class T.B. plus. | | | | Class T.B. minus. | Class T.B. plus. | | | |
| | | | | Group 1. | Group 2. | Group 3. | Total (Class T.B. plus). | | Group 1. | Group 2. | Group 3. | Total (Class T.B. plus). | | Group 1. | Group 2. | Group 3. | Total (Class T.B. plus). | | Group 1. | Group 2. | Group 3. | Total (Class T.B. plus). |
| Discharged as cured. | Adults. | M. | 19 | 12 | 1 | — | 13 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | | F. | 2 | 1 | 1 | — | 2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | Children. | M. | 1 | 1 | — | — | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | | F. | 3 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Disease arrested. | Adults. | M. | 20 | 7 | 8 | 1 | 16 | 7 | 5 | 4 | — | 9 | — | — | — | — | — | — | — | — | — | — |
| | | F. | 19 | 2 | 3 | 1 | 6 | 9 | 5 | 1 | — | 6 | — | — | — | — | — | — | — | — | — | — |
| | Children. | M. | 15 | — | — | — | — | 3 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | | F. | 10 | 2 | — | — | 2 | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Disease not arrested. | Adults. | M. | 16 | 18 | 38 | 24 | 80 | 6 | 5 | 12 | — | 17 | 18 | 14 | 24 | 3 | 41 | 44 | 11 | 40 | 3 | 54 |
| | | F. | 17 | 6 | 11 | 9 | 26 | 12 | 4 | 3 | 4 | 11 | 24 | 8 | 9 | 1 | 18 | 57 | 8 | 22 | 3 | 33 |
| | Children. | M. | 20 | 1 | — | — | 1 | 24 | 2 | — | — | 2 | 22 | 3 | — | — | 3 | 18 | 1 | 1 | — | 2 |
| | | F. | 30 | 1 | 1 | — | 2 | 8 | — | 1 | — | 1 | 19 | 1 | — | — | 1 | 17 | 1 | — | 1 | 2 |
| DITION NOT ASCERTAINED DURING THE YEAR. | | | 40 | 10 | 8 | 3 | 21 | 12 | 10 | 5 | — | 15 | 17 | 13 | 6 | — | 19 | — | — | — | — | — |
| SIGHT OF OR OTHERWISE RE- ED FROM DISPENSARY REGISTER | | | 187 | 29 | 39 | 16 | 84 | 54 | 13 | 17 | 6 | 36 | 19 | 7 | 2 | 1 | 10 | 11 | — | 2 | — | 2 |
| DEAD. | Adults. | M. | 17 | 5 | 37 | 34 | 76 | 28 | 6 | 26 | 15 | 47 | 14 | 3 | 18 | 10 | 31 | 6 | — | 8 | 7 | 15 |
| | | F. | 18 | 5 | 24 | 26 | 55 | 21 | 3 | 24 | 16 | 43 | 6 | 1 | 8 | 5 | 14 | 7 | 1 | 8 | 2 | 11 |
| | Children. | M. | — | — | — | — | — | 1 | — | — | — | — | — | — | — | — | — | 2 | — | — | — | — |
| | | F. | 1 | 1 | 1 | 1 | 3 | 1 | — | — | — | — | 2 | — | — | — | — | — | — | 2 | — | 2 |
| S .. .. .. | | | 435 | 101 | 172 | 115 | 388 | 187 | 53 | 93 | 41 | 187 | 141 | 50 | 67 | 20 | 137 | 162 | 22 | 83 | 16 | 121 |

# TABLE 12B.

## NON-PULMONARY TUBERCULOSIS.

Annual Return showing in summary form the condition of all Patients whose case records are in the possession of the Dispensaries at the end of 1928, arranged according to the years in which the Patients first came under Public Medical Treatment, and their classification as shown on Form A.

| dition at the time of the last record de during the year to which the Return relates. | | | Previous to 1926. | | | | | 1926. | | | | | 1927. | | | | | 1928. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Bones and Joints. | Abdominal. | Other Organs. | Peripheral Glands. | Total. | Bones and Joints. | Abdominal. | Other Organs. | Peripheral Glands. | Total. | Bones and Joints. | Abdominal. | Other Organs. | Peripheral Glands. | Total. | Bones and Joints | Abdominal. | Other Organs. | Peripheral Glands | Total. |
| Discharged as cured. | Adults. | M. | 4 | — | — | — | 4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | | F. | 6 | — | — | — | 6 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | Chil-dren. | M. | 10 | — | — | — | 10 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | | F. | 2 | — | — | — | 2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Disease arrested. | Adults. | M. | 7 | — | — | 2 | 9 | 2 | — | 1 | 2 | 5 | 1 | — | 1 | — | 2 | 2 | — | — | — | 2 |
| | | F. | 3 | 1 | — | 2 | 6 | 3 | — | 1 | 4 | 8 | 3 | 1 | — | 3 | 7 | 3 | — | — | — | 3 |
| | Chil-dren. | M. | 7 | 1 | — | 6 | 14 | 2 | 1 | — | 5 | 8 | 3 | — | — | 5 | 8 | 2 | 1 | — | 1 | 4 |
| | | F. | 2 | 2 | 1 | 6 | 11 | 1 | 1 | — | 4 | 6 | — | — | — | 2 | 2 | — | — | — | 3 | 3 |
| Disease not arrested. | Adults. | M. | 2 | — | 1 | — | 3 | 1 | — | 3 | — | 4 | 4 | — | — | 2 | 6 | 4 | — | 3 | 1 | 8 |
| | | F. | 3 | — | — | — | 3 | 1 | — | — | — | 1 | 2 | — | 1 | 1 | 4 | 4 | 1 | 1 | 7 | 13 |
| | Chil-dren. | M. | 8 | — | 1 | 1 | 10 | — | — | — | — | — | 2 | 2 | 1 | 2 | 7 | 5 | 1 | 1 | 3 | 10 |
| | | F. | 2 | — | — | 1 | 3 | 1 | — | — | — | 1 | 2 | — | — | 1 | 3 | 5 | — | — | 6 | 11 |
| SFERRED TO PULMONARY .. | | | — | — | — | 2 | 2 | — | — | — | — | — | 2 | — | — | — | 2 | — | — | — | — | — |
| TION NOT ASCERTAINED DURING THE YEAR .. .. .. | | | 11 | 2 | — | — | 13 | 2 | — | — | 1 | 3 | 2 | — | — | 2 | 4 | — | — | — | — | — |
| SIGHT OF OR OTHERWISE RE- D FROM DISPENSARY REGISTER .. | | | 31 | 7 | 7 | 24 | 69 | 13 | 1 | — | 7 | 21 | 1 | 1 | — | 2 | 4 | 1 | — | — | — | 1 |
| DEAD. | Adults. | M. | 2 | 1 | — | — | 3 | 3 | 1 | — | — | 4 | 1 | — | — | 1 | 2 | — | — | — | — | — |
| | | F. | 4 | — | — | 1 | 5 | 1 | — | — | — | 1 | — | 3 | — | 1 | 4 | 1 | 1 | — | — | 2 |
| | Chil-dren. | M. | — | — | — | — | — | 1 | — | — | — | 1 | — | — | — | — | — | — | 1 | — | — | 1 |
| | | F. | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | 1 | — | — | — | — | — |
| s .. .. .. | | | 104 | 14 | 10 | 45 | 173 | 31 | 4 | 5 | 23 | 63 | 23 | 8 | 3 | 22 | 56 | 27 | 5 | 5 | 21 | 58 |

## SANITARY INSPECTION OF THE DISTRICT.

| | |
|---|---|
| Visits to Premises | 32,231 |
| Tests applied to House Drains | 3,699 |
| Notices served to abate Nuisances | 2,140 |
| Notices complied with | 2,122 |
| Legal Notices served | 120 |
| Sanitary Improvements effected | 8,651 |
| Letters written | 2,624 |
| Houses systematically inspected | 1,618 |

### HOUSES LET IN LODGINGS.

| | |
|---|---|
| Number of visits | 13,481 |
| Notices served | 1,582 |
| Notices complied with | 1,400 |

| | |
|---|---|
| Visits to premises in connection with Infectious Diseases | 1,556 |
| Premises disinfected | 2,458 |
| Articles disinfected | 10,442 |

### FOOD INSPECTIONS.

| | |
|---|---|
| Number of Provision Shops inspected | 4,009 |
| Number of Fish Carts and Shops inspected | 1,177 |
| Number of Fruit Carts and Shops inspected | 2,479 |
| Amount of Food considered unfit and surrendered to District Inspectors | 4 tons 0 cwts. 3 qr. 16 lbs. |
| Number of Samples procured under the Sale of Food and Drugs Acts | 1,018 |
| Number of Samples found adulterated | 67 |
| Inspection of Dairies, Cowsheds and Milkshops | 3,023 |

### FACTORY AND WORKSHOP ACT.

| | |
|---|---|
| Inspections of Bakehouses | 91 |
| ,, Workshops | 321 |
| ,, Factories | 290 |
| ,, Outworkers' Premises | 188 |
| Notices and Letters sent *re* defects | 57 |

| | |
|---|---|
| Inspections of Slaughterhouses | 3,328 |

### GENERAL SANITARY WORK EFFECTED.

| | |
|---|---|
| Number of Drains re-laid or repaired | 787 |
| Choked drains cleared | 378 |
| Soil pipes and Ventilating Shafts fixed or repaired | 402 |
| Stoneware Gully Traps fixed | 869 |
| New Water-closet Pans fixed | 651 |
| Inspection Chambers constructed | 283 |
| Flush Cisterns fixed or repaired | 526 |
| New Closets and Urinals provided | 172 |
| Surface of Courtyards, etc., re-laid or repaired | 779 |
| Refuse Bins provided | 658 |
| Premises cleansed and limewashed or papered | 706 |
| Roofs and Flats repaired | 485 |
| Foul Closets cleansed | 123 |
| Overcrowding abated | 17 |
| Offensive Manure removed | 184 |
| New Ground Floors laid and ventilated | 181 |
| Slate Tanks abolished | 45 |
| Eaves Gutters and Fall Pipes repaired | 298 |
| Wall Drains and Cesspits destroyed | 9 |
| Nuisances (caused by keeping of animals) abated | 32 |
| Other Sanitary Improvements | 1,066 |
| TOTAL | 8,651 |

### RATS AND MICE (DESTRUCTION) ACT, 1919.

The following represents the work carried out under the above Act during 1928.

| | |
|---|---|
| Premises visited and re-visited | 1,911 |
| Baits laid | 33,077 |
| Rats destroyed | 4,930 |

EGE OF SURGEONS
29

# SAMPLES TAKEN UNDER SALE OF FOOD AND DRUGS ACTS.

| Article. | Official. |  | Informal. |  | Totals. |
|---|---|---|---|---|---|
|  | Genuine. | Adulterated. | Genuine. | Adulterated. |  |
| Baking Powder | — | — | 10 | — | 10 |
| Brandy | — | — | 5 | — | 5 |
| Butter | 14 | — | 70 | 1 | 85 |
| Camphorated Oil | — | — | 4 | — | 4 |
| Candied Peel | — | — | 5 | — | 5 |
| Castor Oil | — | — | 5 | — | 5 |
| Cheese | — | — | 13 | — | 13 |
| Cocoa | — | — | 5 | — | 5 |
| Coffee | — | — | 3 | — | 3 |
| Coffee and Chicory | — | — | 2 | — | 2 |
| Condensed Milk | — | — | 6 | — | 6 |
| Cream | 10 | — | 43 | — | 53 |
| Currants | — | — | 1 | — | 1 |
| Dried Fruits | — | — | 5 | — | 5 |
| Egg Self-raising Four | — | — | — | 1 | 1 |
| Essence of Rennet | — | — | — | 1 | 1 |
| Flour | — | — | 7 | — | 7 |
| Gin | — | — | 3 | 5 | 8 |
| Ground Almonds | — | — | 8 | — | 8 |
| Hogs Puddings | — | — | 6 | — | 6 |
| Honey | — | — | 8 | — | 8 |
| Jams | 6 | — | 6 | — | 12 |
| Lard | — | — | 10 | — | 10 |
| Lemon Curd | — | — | 7 | — | 7 |
| Lemon Squash | — | — | — | 2 | 2 |
| Margarine | — | — | 11 | — | 11 |
| Marmalade | — | — | 6 | — | 6 |
| Malt Vinegar | — | — | 5 | — | 5 |
| Meat and Fish Paste | — | — | 12 | — | 12 |
| Nut Cream Butter (Walnut) | — | — | — | 1 | 1 |
| Olive Oil | — | — | 6 | — | 6 |
| Pepper | — | — | 6 | — | 6 |
| Raisins | — | — | 3 | — | 3 |
| Raw Milk | 503 | 38 | 52 | 6 | 599 |
| Rum | — | — | 7 | — | 7 |
| Rum and Coffee | — | — | 2 | — | 2 |
| Saffron Self-raising Flour | — | — | 1 | — | 1 |
| Sauce | — | — | 6 | — | 6 |
| Sausages | — | — | 14 | 1 | 15 |
| Self-raising Flour | — | — | 7 | — | 7 |
| Skimmed Milk | 14 | 2 | 3 | — | 19 |
| Sterilised Milk | — | — | 1 | — | 1 |
| Sultanas | — | — | 2 | — | 2 |
| Sweet Spirits of Nitre | — | — | 3 | 1 | 4 |
| Tea | — | — | 7 | — | 7 |
| Tincture of Iodine | — | — | 2 | — | 2 |
| Vinegar | — | 4 | 10 | 4 | 18 |
| Whisky | — | — | 6 | — | 6 |
|  | 547 | 44 | 404 | 23 | 1,018 |

TABLE 15.

## UNSOUND MEAT DESTROYED DURING THE YEAR.

| *DISEASE.* | *CARCASES.* | | | | *ORGANS.* | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Beef.* | *Veal.* | *Mutton.* | *Pork.* | *Lungs.* | *Hearts.* | *Livers.* | *Kidneys.* | *Heads. Tongues.* | *Spleens.* | *Mesenteries.* | *Stomachs.* |
| Tuberculosis .. .. | 186 | 2 | — | 49 | 1,083 | 1,076 | 909 | 394 | 678 | 484 | 512 | 456 |
| Actinomycosis .. .. | — | — | — | — | 1 | 1 | 1 | — | 149 | — | — | — |
| Pyaemia .. .. .. | — | 2 | — | — | 5 | 2 | 32 | 2 | — | — | — | — |
| Abscess .. .. .. | — | — | — | 1 | 72 | 27 | 230 | 12 | 129 | 2 | 2 | 10 |
| Emaciation .. .. | 98 | — | 13 | 1 | — | — | — | — | — | — | — | — |
| Dropsy .. .. .. | 152 | 29½ | 143½ | 21 | 236 | 236 | 229 | 374 | 287 | 183 | 225 | 209 |
| Pneumonia .. .. | — | — | — | 1 | 28 | 14 | — | — | — | — | — | — |
| Septicæmia .. .. | 28 | 4 | 4 | 2 | 25 | 25 | 25 | 40 | 19 | 15 | 13 | 14 |
| Pericarditis .. .. | 1 | — | 6¼ | — | 20 | 20 | — | — | — | — | — | — |
| Pleurisy .. .. .. | — | — | — | — | — | — | — | — | — | — | — | — |
| Angioma .. .. .. | — | — | — | — | — | — | 256 | — | — | — | — | — |
| Fœtal Flesh .. .. | — | — | — | — | — | — | — | — | — | — | — | — |
| Decomposition .. .. | 3½ | 3¾ | 6½ | 1 | 91 | 52 | 90 | 10 | 18 | 2 | 2 | 6 |
| Flukes .. .. .. | — | — | — | — | — | — | 301 | — | — | — | — | — |
| Cirrhosis .. .. .. | — | — | — | — | — | — | 2,521 | — | — | — | — | — |
| Cancer .. .. .. | 5 | — | — | — | 3 | 3 | 3 | 10 | 5 | — | — | — |
| Necrosis .. .. .. | — | — | — | — | — | — | — | — | — | — | — | — |
| Inflammation .. .. | 7 | 8 | 8 | 5 | 103 | 74 | 105 | 52 | 25 | 20 | 22 | 36 |
| Red Water .. .. | 3 | — | — | — | 37 | 36 | 56 | 84 | 25 | 26 | 22 | 23 |
| Cysts .. .. .. | — | — | — | — | — | — | 17 | 6 | — | — | — | — |
| Suffocation ... .. | — | 2 | 25 | — | — | — | — | — | — | — | — | — |
| Swine Fever ... .. | — | — | — | — | — | — | — | — | — | — | — | — |
| Jaundice .. ... .. | — | 2 | 1 | — | 1 | 1 | 1 | 6 | 3 | — | — | — |
| Tubercular Pig's Heads .. | — | — | — | 2,093 | — | — | — | — | — | — | — | — |

The number of Animals slaughtered in the City for the year was 43,278 made up as follows:—
Bovines, 16,315, Sheep and Lamb, 24,529, Calves, 1,092, and Pigs, 1,342.

OF SURGEONS
-3 JUN 29

## TABLE 16.

## UNSOUND FOOD DESTROYED.

The number of shops and carts inspected was 7,665.

Quantity surrendered to District Sanitary Inspectors, and destroyed :—

| FRUIT | *Tons* | *cwts.* | *qrs.* | *lbs.* |
|---|---|---|---|---|
| Apples | 0 | 5 | 3 | 5 |
| Cherries | 0 | 0 | 1 | 20 |
| Grapes | 0 | 0 | 0 | 16½ |
| Pineapples | 0 | 2 | 0 | 16 |
| Plums | 0 | 0 | 0 | 8 |
| Raspberries | 0 | 0 | 0 | 1 |
| Tomatoes | 0 | 4 | 0 | 12 |
| VEGETABLES— | | | | |
| Potatoes | 0 | 13 | 0 | 14 |
| PROVISIONS— | | | | |
| Biscuits | 0 | 1 | 0 | 8 |
| Fish | 0 | 0 | 0 | 3 |
| Fowls | 0 | 0 | 0 | 20 |
| Goose | 0 | 0 | 0 | 12 |
| MEAT—From Food Factories, Etc.— | | | | |
| Beef | 0 | 1 | 2 | 2 |
| Offal | 0 | 0 | 3 | 5½ |
| Pigs' Livers | 0 | 0 | 1 | 2 |
| Pigs' Plucks | 0 | 1 | 0 | 0 |
| Pork | 2 | 7 | 2 | 13 |

| TINNED GOODS— | |
|---|---|
| Beef | 26 tins |
| Crab | 1 tin |
| Fruit Salad | 5 tins |
| Loganberries | 43 „ |
| Mock Turtle | 1 tin |
| Ox Tongue | 12 tins |
| Pears | 3 „ |
| Raspberries | 2 „ |
| Strawberries | 4 „ |

TABLE 17.

## Factories, Workshops and Workplaces.

### 1.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

Including Inspections made by Sanitary Inspectors.

| Premises. (1) | Number of Inspections. (2) | Written Notices. (3) | Occupiers prosecuted. (4) |
|---|---|---|---|
| FACTORIES (Including Factory Laundries) .. .. .. .. .. | 310 | 25 | — |
| WORKSHOPS (Including Workshop Laundries) .. .. .. .. | 353 | 34 | — |
| WORKPLACES (Other than Outworkers' premises) .. .. .. | — | — | — |
| Total .. .. .. .. .. | 663 | 59 | — |

### 2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

| Particulars. (1) | Number of Defects. Found. (2) | Remedied. (3) | Referred to H.M. Inspector. (4) | Number of offences in respect to which Prosecutions were instituted. (5) |
|---|---|---|---|---|
| *Nuisances under the Public Health Acts :—* | | | | |
| Want of cleanliness .. .. .. .. .. | 32 | 37 | — | — |
| Want of ventilation .. .. .. .. .. | 4 | 6 | — | — |
| Overcrowding .. .. .. .. .. .. | — | — | — | — |
| Want of drainage of floors .. .. .. .. | 1 | 1 | — | — |
| Other nuisances .. .. .. .. .. .. | 6 | 11 | — | — |
| Sanitary accommodation insufficient .. .. .. | 6 | 6 | — | — |
| unsuitable or defective .. | 36 | 39 | — | — |
| not separate for sexes .. | 3 | 4 | — | — |
| *Offences under the Factory and Workshop Acts :—* | | | | |
| Illegal occupation of underground bakehouse (s. 101) .. | — | — | — | — |
| Other offences .. .. .. .. .. .. | — | — | — | — |
| Total .. .. .. | 88 | 104 | — | — |

## TABLE 18.

# HOUSING STATISTICS, 1928.

| | |
|---|---|
| Number of new houses erected during the year | |
| (*a*) Total (including numbers given separately under (*b*) | 706 |
| (*b*) With State assistance under the Housing Acts: | |
| (*i.*) By the Local Authority | 385 |
| (*ii.*) By other bodies or persons | 206 |

## 1. UNFIT DWELLING-HOUSES.

| | |
|---|---|
| Inspection— | |
| (1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts) | 1,915 |
| (2) Number of dwelling-houses which were inspected and recorded under the Housing Consolidated Regulations, 1910, or the Housing Consolidated Regulations, 1925 | 297 |
| (3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation | 30 |
| (4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation | 267 |

## 2. REMEDY OF DEFECTS WITHOUT SERVICE OF FORMAL NOTICES.

| | |
|---|---|
| Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers | 20 |

## 3. ACTION UNDER STATUTORY POWERS.

| | |
|---|---|
| *A.*—Proceedings under section 3 of the Housing Act, 1925. | |
| (1) Number of dwelling-houses in respect of which notices were served requiring repairs | 247 |
| (2) Number of dwelling-houses which were rendered fit after service of formal notices:— | |
| (*a*) By owners | 170 |
| (*b*) By Local Authority in default of owners | Nil. |
| (*c*) By Local Authority with consent of owners | 17 |
| (3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close | 2 |
| *B.*—Proceedings under Public Health Acts. | |
| (1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied | 2,140 |
| (2) Number of dwelling-houses in which defects were remedied after service of formal notices— | |
| (*a*) By Owners | 2,121 |
| (*b*) By Local Authority in default of owners | 2 |
| *C.*—Proceedings under sections 11, 14 and 15 of the Housing Act, 1925. | |
| (1) Number of representations made with a view to the making of Closing Orders | 30 |
| (2) Number of dwelling-houses in respect of which Closing Orders were made | 30 |
| (3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit | 18 |
| (4) Number of dwelling-houses in respect of which Demolition Orders were made | 5 |
| (5) Number of dwelling-houses demolished in pursuance of Demolition Orders | 7 |
| (6) Number of dwelling-houses in respect of which Closing and Demolition Orders have been determined, the dwelling-houses having been rendered fit | 4 |

## TABLE 19.

## BACTERIOLOGICAL LABORATORY WORK DONE DURING THE YEAR 1928.

| *Disease.* | *Borough Hospitals.* | *Medical Practitioners.* | *Tuberculosis Dispensary.* | *School Medical Department.* | *M.O.H. and Port.* | *Total.* |
|---|---|---|---|---|---|---|
| Tuberculosis (Sputum) .. | — | 627 | 1,660 | — | — | 2,287 |
| Diphtheria .. .. .. | 3,268 | 1,021 | 1 | 2,850 | 491 | 7,631 |
| Enteric Fever .. .. | 9 | 19 | — | — | — | 28 |
| Cerebro-Spinal Fever .. | 6 | 1 | — | — | — | 7 |
| Ringworm .. .. .. | — | 1 | — | 69 | — | 70 |
| Rats .. .. .. .. | — | — | — | — | 225 | 225 |
| Urine .. .. .. | 7 | 21 | 24 | — | 2 | 54 |
| Milk .. .. .. .. | — | — | — | — | 1,068 | 1,068 |
| Tap Water .. .. .. | — | — | — | — | 22 | 22 |
| Lochia .. .. .. | 1 | 5 | — | — | 16 | 22 |
| Animal Inoculation .. .. | — | — | — | — | 17 | 17 |
| Sea Water .. .. .. | — | — | — | — | 192 | 192 |
| Ice Cream .. .. .. | — | — | — | — | 36 | 36 |
| Oysters .. .. .. | — | — | — | — | 5 | 5 |
| Others .. .. .. | — | 1 | 1 | 3 | 17 | 22 |
| Totals .. | 3,291 | 1,696 | 1,686 | 2,922 | 2,091 | 11,686 |

TABLE 20.

## SUMMARY OF HEALTH EDUCATION WORK DONE.

| | |
|---|---|
| Slide Leaflets | 1,000 |
| Designs for slides submitted | 35 |
| Designs for slides accepted | 18 |
| Number of Cinematograph slides made during 1928 | 480 |
| Number of slides exhibited in Cinemas and Theatres and Exhibitions | 3,300 |
| Number of slides sold to other Authorities | 260 |
| Number of Film shows | 6 |
| Number of Films shown during Health Week | 5 |
| Attendances at Film Shows | 5,000 |
| Number of Leaflets distributed | 24,500 |
| Number of Posters displayed | 1,420 |
| Number of " Better Health " Magazines circulated | 132,000 |
| Number of Blocks made | 56 |
| Number of " Health Hints " Booklets circulated | 200 |
| Advertisements *re* V.D. Treatment inserted in local newspapers | 52 |
| Enamel plates placed in Conveniences showing times of Clinics | 73 |
| Number of large enamel plates exhibited at Railway Stations, Tuberculosis and Maternity and Child Welfare Centres | 10 |
| Memoranda Books circulated to Doctors showing Health Services available | 1 |
| One Runsyne Advertising Machine was fixed in the centre of the Town giving " Health Talks " and other messages | |

Two Stalls at the Royal Sanitary Institute's Exhibition.

## TABLE 21.

## ELEMENTARY SCHOOLS.

## RETURN OF MEDICAL INSPECTIONS FOR THE YEAR ENDED 31st DECEMBER, 1928.

### *A.*—ROUTINE MEDICAL INSPECTIONS.

| | | |
|---|---|---|
| Number of Code Group Inspections— | | |
| Entrants | 3,397 | |
| Intermediates | 3,337 | |
| Leavers | 1,754 | |
| | | 8,488 |
| Number of other Routine Inspections | | 141 |
| | | 8,629 |

### *B.*—OTHER INSPECTIONS.

| | |
|---|---|
| Number of Special Inspections | 9,840 |
| Number of Re-inspections | 11,911 |
| | 21,751 |

# TABLE 22.

## ELEMENTARY SCHOOLS.

## A. RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE YEAR ENDED 31st DECEMBER, 1928.

| | Defect or Disease. (1) | Routine Inspections. No. of Defects. Requiring Treatment. (2) | Routine Inspections. No. of Defects. Requiring to be kept under observation but *not* requiring Treatment. (3) | Special Inspections. No. of Defects. Requiring Treatment. (4) | Special Inspections. No. of Defects. Requiring to be kept under observation but *not* requiring Treatment. (5) |
|---|---|---|---|---|---|
| | Malnutrition | 7 | 26 | 3 | — |
| | Uncleanliness (See Table IV, Group V) | — | — | — | — |
| Skin | Ringworm—Scalp | 1 | — | 50 | — |
| | Ringworm—Body | — | — | 192 | — |
| | Scabies | 4 | — | 137 | — |
| | Impetigo | 48 | — | 443 | — |
| | Other Diseases (non-tuberculous) | 104 | 9 | 1,237 | — |
| Eye | Blepharitis | 29 | — | 13 | — |
| | Conjunctivitis | 14 | — | 63 | — |
| | Keratitis | 1 | — | 5 | — |
| | Corneal Opacities | 4 | 3 | 4 | — |
| | Defective Vision (excluding Squint) | 526 | 271 | 299 | 4 |
| | Squint | 83 | 108 | 97 | — |
| | Other conditions | 18 | 3 | 40 | — |
| Ear | Defective Hearing | 40 | 1 | 24 | — |
| | Otitis Media | 50 | 4 | 196 | — |
| | Other Ear Diseases | 13 | — | 13 | — |
| Nose and Throat | Enlarged Tonsils only | 502 | 706 | 56 | 1 |
| | Adenoids only | 20 | 11 | 54 | — |
| | Enlarged Tonsils and Adenoids | 42 | 21 | 89 | 1 |
| | Other Conditions | 80 | 3 | 245 | — |
| | Enlarged Cervical Glands (non-tuberculous) | 9 | 38 | 7 | — |
| | Defective Speech | 52 | 13 | 9 | — |
| | Teeth—Dental Diseases (See Table IV, Group IV) | 1,039 | — | — | — |
| Heart and Circulation | Heart Disease: | | | | |
| | Organic | 2 | 24 | 6 | 1 |
| | Functional | 10 | 46 | 8 | — |
| | Anæmia | 135 | 11 | 109 | — |
| Lungs | Bronchitis | 259 | 19 | 229 | — |
| | Other Non-Tuberculous Diseases | 33 | 30 | 129 | — |
| Tuberculosis | Pulmonary: | | | | |
| | Definite | — | — | 8 | — |
| | Suspected | 1 | 2 | 25 | — |
| | Non-Pulmonary: | | | | |
| | Glands | 4 | — | 6 | — |
| | Spine | — | — | 1 | — |
| | Hip | 1 | — | 2 | — |
| | Other Bones and Joints | 3 | — | 12 | — |
| | Skin | — | — | — | — |
| | Other Forms | 3 | — | 8 | — |
| Nervous System | Epilepsy | 4 | — | 8 | — |
| | Chorea | 6 | 3 | 13 | — |
| | Other Conditions | 34 | 19 | 17 | — |
| Deformities | Rickets | 7 | 21 | 38 | — |
| | Spinal Curvature | 7 | 3 | 12 | — |
| | Other Forms | 38 | 22 | 14 | 1 |
| | Other Defects and Diseases | 176 | 37 | 5,191 | — |

## TABLE 23.

## ELEMENTARY SCHOOLS.

### B. NUMBER OF INDIVIDUAL CHILDREN FOUND AT ROUTINE MEDICAL INSPECTION TO REQUIRE TREATMENT (EXCLUDING UNCLEANLINESS AND DENTAL DISEASES).

| *Group.* (1) | *No. of Children.* | | *Percentage of Children found to require treatment.* (4) |
|---|---|---|---|
| | *Inspected.* (2) | *Found to require treatment.* (3) | |
| *Code Groups.* | | | |
| Entrants .. .. | 3,397 | 838 | 24.7 |
| Intermediates .. .. | 3,337 | 1,043 | 31.3 |
| Leavers .. .. | 1,754 | 423 | 24.1 |
| Total (Code Groups) .. | 8,488 | 2,304 | 27.1 |
| Other Routine Inspections | 141 | 29 | 20.6 |

# RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA

| | | | *Boys.* | *Girls.* | *Total.* |
|---|---|---|---|---|---|
| BLIND (including partially Blind). | (*i*) Suitable for training in a School or Class for the totally blind. | Attending Certified Schools or Classes for the Blind ... ... ... ... | 1 | 4 | 5 |
| | | Attending Public Elementary Schools ... | — | — | — |
| | | At other Institutions ... ... ... | — | — | — |
| | | At no School or Institution ... ... | 1 | 1 | 2 |
| | (*ii*) Suitable for training in a School or Class for the partially blind. | Attending Certified Schools or Classes for the Blind ... ... ... | — | — | — |
| | | Attending Public Elementary Schools ... | — | — | — |
| | | At other Institutions ... ... ... | — | — | — |
| | | At no School or Institution ... ... | — | — | — |
| DEAF (including deaf and dumb and partially deaf). | (*i*) Suitable for training in a School or Class for the totally deaf or deaf and dumb. | Attending Certified Schools or Classes for the Deaf ... ... ... ... | 19 | 21 | 40 |
| | | Attending Public Elementary Schools ... | — | — | — |
| | | At other Institutions ... ... ... | — | — | — |
| | | At no School or Institution ... ... | — | — | — |
| | (*ii*) Suitable for training in a School or Class for the partially deaf. | Attending Certified Schools or Classes for the Deaf ... ... ... ... | — | — | — |
| | | Attending Public Elementary Schools ... | 2 | 2 | 4* |
| | | At other Institutions ... ... ... | — | — | — |
| | | At no School or Institution ... ... | — | — | — |
| MENTALLY DEFECTIVE. | Feeble-minded (cases not notifiable to the Local Control Authority). | Attending Certified Schools for Mentally Defective Children—Residential ... | 6 | 7 | 13 |
| | | Day ... ... | 183 | 119 | 302 |
| | | | 189 | 126 | 315 |
| | | Attending Public Elementary Schools ... | — | — | — |
| | | At other Institutions ... ... ... | 11 | 13 | 24§ |
| | | At no School or Institution ... ... | — | — | — |
| EPILEPTICS. | Suffering from severe epilepsy. | Attending Certified Special Schools for Epileptics ... ... ... ... | 2 | 4 | 6 |
| | | In Institutions other than Certified Special Schools ... ... ... | — | — | — |
| | | Attending Public Elementary Schools ... | — | — | — |
| | | At no School or Institution ... ... | — | 1 | 1 |
| | Suffering from epilepsy which is not severe. | Attending Public Elementary Schools ... | 6 | 4 | 10 |
| | | At no School or Institution ... ... | — | — | — |
| PHYSICALLY DEFECTIVE. | †Infectious pulmonary and glandular tuberculosis | At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board ... ... ... | 12 | 7 | 19 |
| | | At other Institutions ... ... ... | — | 2 | 2 |
| | | At no School or Institution ... ... | 1 | — | 1 |
| | †Non-infectious but active pulmonary and glandular tuberculosis. | At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board ... ... | 17 | 8 | 25 |
| | | At Certified Residential Open-Air Schools ... ... ... ... | — | — | — |
| | | At Certified Day Open-Air Schools ... | 5 | 7 | 12 |
| | | At Public Elementary Schools ... ... | 2 | 2 | 4 |
| | | At other Institutions ... ... ... | — | 2 | 2 |
| | | At no School or Institution ... ... | 3 | 5 | 8 |
| | Delicate children (e.g., pre- or latent tuberculosis, malnutrition, debility, anæmia, etc.). | At Certified Residential Open-Air Schools ... ... ... ... | — | — | — |
| | | At Certified Day Open-Air Schools ... | 134 | 159 | 293 |
| | | At Public Elementary Schools ... ... | 8 | 3 | 11 |
| | | At other Institutions ... ... ... | — | — | — |
| | | At no School or Institution ... ... | 1 | — | 1 |
| | †Active non-pulmonary tuberculosis. | At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board ... ... | 9 | 9 | 18 |
| | | At Public Elementary Schools ... ... | — | — | — |
| | | At other Institutions ... ... ... | 3 | 2 | 5 |
| | | At no School or Institution ... ... | 3 | — | 3 |
| | Crippled Children (other than those with active tuberculous disease), e.g., children suffering from paralysis, etc., and including those with severe heart disease. | At Certified Hospital Schools ... ... | — | — | — |
| | | At Certified Residential Cripple Schools | 1 | — | 1 |
| | | At Certified Day Cripple Schools ... | — | — | — |
| | | At Public Elementary Schools ... ... | 91 | 67 | 158‡ |
| | | At other Institutions (Open-Air Schools) | 16 | 12 | 28 |
| | | At no School or Institution ... ... | 7 | 6 | 13 |

*Notes.*—* Making good progress at ordinary Elementary School, and at present not certified.
† Tuberculosis Officer's classification.
‡ These children are not certified "Physical Defectives," and they are capable of receiving proper benefit from education in Elementary Schools, and, where necessary, are receiving treatment at the Orthopædic Clinics.
§ At Private Schools.

## TABLE 25.

## ELEMENTARY SCHOOLS.

# RETURN OF DEFECTS TREATED DURING THE YEAR ENDED 31st DECEMBER, 1928.

## TREATMENT TABLE.

**Group I.—MINOR AILMENTS** (Excluding Uncleanliness, for which see Group V).

| *Disease or Defect.* (1) | *Number of Defects treated, or under treatment during the year.* | | |
|---|---|---|---|
| | *Under the Authority's Scheme.* (2) | *Otherwise.* (3) | *Total.* (4) |
| Skin— | | | |
| Ringworm—Scalp .. .. | 47 | 2 | 49 |
| Ringworm—Body .. .. | 191 | — | 191 |
| Scabies .. .. .. .. | 137 | — | 137 |
| Impetigo .. .. .. | 442 | 1 | 443 |
| Other Skin Diseases .. .. | 1,217 | 18 | 1,235 |
| Minor Eye Defects—(External and other, but excluding cases falling in Group II). .. .. .. .. | 348 | 140 | 488 |
| Minor Ear Defects .. .. | 191 | 39 | 230 |
| Miscellaneous—Minor (*e.g.* minor injuries, bruises, sores, chilblains, etc.) .. | 3,811 | 44 | 3,855 |
| Miscellaneous—Other | 136 | 2,491 | 2,627 |
| TOTAL .. | 6,520 | 2,735 | 9,255 |

N.B.—10 cases of Ringworm of the Scalp were treated by X-ray during the year.

TABLE 25.—(continued)

**Group II.—DEFECTIVE VISION AND SQUINT** (excluding Minor Eye Defects treated as Minor Ailments—Group I).

| *Defect or Disease.* (1) | *Number of defects dealt with.* | | | |
|---|---|---|---|---|
| | *Under the Authority's Scheme.* (2) | *Submitted to refraction by private practitioner or at Hospital, apart from the Authority's Scheme.* (3) | *Otherwise.* (4) | *Total.* (5) |
| Errors of Refraction (including Squint) | 949 | 183 | — | 1,132 |
| Other Defect or Disease of the eyes (excluding those recorded in Group I) .. .. | 501 | — | 31 | 532 |
| TOTAL .. | 1,450 | 183 | 31 | 1,664 |

Total Number of Children for whom Spectacles were prescribed :—

| | | |
|---|---|---|
| (*a*) | Under the Authority's Scheme .. .. | 888 |
| (*b*) | Otherwise .. .. .. .. .. | 154 |

Total Number of Children who obtained or received Spectacles :—

| | | |
|---|---|---|
| (*a*) | Under the Authority's Scheme .. .. | 854 |
| (*b*) | Otherwise .. .. .. .. .. | 188 |

In addition, 397 minor repairs to Spectacles were carried out, and 453 Myopics re-examined.

The total number of new cases attending the Eye Clinic was **1,570.**

TABLE 25.—(continued).

## Group III.—TREATMENT OF DEFECTS OF NOSE AND THROAT.

NUMBER OF DEFECTS.

| *Received Operative Treatment.* | | | | |
|---|---|---|---|---|
| *Under the Authority's Scheme, in Clinic or Hospital.* (1) | *By Private Practitioner or Hospital, apart from the Authority's Scheme.* (2) | *Total.* (3) | *Received other forms of Treatment.* (4) | *Total number treated.* (5) |
| 128 | 38 | 166 | 723 | 889 |

TABLE 25.—continued.

## Group IV.—DENTAL DEFECTS.

(1) Number of Children who were :—

(*a*) Inspected by the Dentist :

Aged :

| | Age | Number | | |
|---|---|---|---|---|
| Routine Age Groups | 5 | 1,240 | Total .. | 8,258 |
| | 6 | 1,194 | | |
| | 7 | 1,311 | | |
| | 8 | 1,359 | | |
| | 9 | 1,069 | | |
| | 10 | 750 | | |
| | 11 | 773 | | |
| | 12 | 248 | | |
| | 13 | 216 | | |
| | 14 | 98 | | |
| Specials .. .. .. .. .. .. .. | | | | 4,276 |
| | | | Grand Total .. | 12,534 |

| | | |
|---|---|---|
| (*b*) | Found to require treatment .. | 9,343 |
| (*c*) | Actually treated .. .. | 7,161 |
| (*d*) | Re-treated during the year as the result of periodical examination .. .. .. .. | 1,438 |

| | | | |
|---|---|---|---|
| (2) | Half-days devoted to— | | |
| | Inspection .. .. .. .. | 121 | |
| | Treatment .. .. .. .. | 908 | — 1,029 |
| (3) | Attendances made by children for treatment .. | | 9,971 |
| (4) | Fillings— | | |
| | Permanent Teeth .. .. .. | 1,446 | |
| | Temporary Teeth .. .. .. | 1,204 | — 2,650 |
| (5) | Extractions— | | |
| | Permanent Teeth .. .. .. | 2,432 | |
| | Temporary Teeth .. .. .. | 13,668 | — 16,100 |
| (6) | Administrations of general Anæsthetics for extractions | | 2,982 |
| (7) | Other Operations— | | |
| | Permanent Teeth .. .. .. | 1,043 | |
| | Temporary Teeth .. .. .. | 995 | — 2,038 |

TABLE 25.—continued.

## Group V.—UNCLEANLINESS AND VERMINOUS CONDITIONS.

(i.) Average number of visits per school made during the year by the School Nurses—Boys' Departments, 2.0; Girls', 3.8; Senior Mixed, 4.0; Junior Mixed and Infants', 4.0.

(ii.) Total number of examinations of children in the Schools by School Nurses—63,906.

(iii.) Number of individual children found unclean—5,717.

(iv.) Number of children cleansed under arrangements made by the Local Education Authority—281.

(v.) Number of cases in which legal proceedings were taken :—

| | | |
|---|---|---|
| (*a*) | Under the Education Act, 1921 .. | Nil. |
| (*b*) | Under School Attendance Bye-laws .. | Nil. |

# TABLE 26.

## SECONDARY SCHOOLS.

## RETURN OF MEDICAL INSPECTIONS FOR THE YEAR ENDED 31st DECEMBER, 1928.

### ROUTINE MEDICAL INSPECTIONS.

|  | *Age.* |  |  |  |  |  |  |  |  |  | Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|
|  | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 & over |  |
| Boys .. | — | — | 86 | 136 | 111 | 126 | 75 | 46 | 8 | 22 | 610 |
| Girls .. | — | — | 74 | 121 | 160 | 207 | 204 | 102 | 44 | 41 | 953 |
| Total | — | — | 160 | 257 | 271 | 333 | 279 | 148 | 52 | 63 | 1563 |

## TABLE 27.

## SECONDARY SCHOOLS.

# A. RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE YEAR ENDED 31st DECEMBER, 1928.

| Defect or Disease. (1) | | Routine Inspections. No. of Defects. Requiring Treatment. (2) | Routine Inspections. No. of Defects. Requiring to be kept under observation but *not* requiring Treatment. (3) | Special Inspections. No. of Defects. Requiring Treatment. (4) | Special Inspections. No. of Defects. Requiring to be kept under observation but *not* requiring Treatment. (5) |
|---|---|---|---|---|---|
| | Malnutrition | — | — | — | — |
| Skin | Ringworm : | | | | |
| | Scalp | — | — | — | — |
| | Body | — | — | — | — |
| | Scabies | — | — | — | — |
| | Impetigo | — | — | — | — |
| | Other Diseases (non-tuberculous) | 11 | — | — | — |
| Eye | Blepharitis | 4 | — | — | — |
| | Conjunctivitis | 1 | — | — | — |
| | Keratitis | — | — | — | — |
| | Corneal Opacities | — | — | — | — |
| | Defective Vision (excluding Squint) | 124 | 143 | — | — |
| | Squint | 6 | 15 | — | — |
| | Other Conditions | 4 | — | — | — |
| Ear | Defective Hearing | 6 | 10 | — | — |
| | Otitis Media | 3 | — | — | — |
| | Other Ear Diseases | 1 | 1 | — | — |
| Nose and Throat | Enlarged Tonsils only | 45 | 81 | — | — |
| | Adenoids only | 4 | — | — | — |
| | Enlarged Tonsils and Adenoids | 5 | 6 | — | — |
| | Other Conditions | 23 | 3 | — | — |
| Enlarged Cervical Glands (non-tuberculous) | | — | 6 | — | — |
| Defective Speech | | 8 | — | — | — |
| Teeth—Dental Diseases | | 261 | — | — | — |
| Heart and Circulation | Heart Disease : | | | | |
| | Organic | 4 | 14 | — | — |
| | Functional | 6 | 45 | — | — |
| | Anæmia | 29 | 4 | — | — |
| Lungs | Bronchitis | 30 | — | — | — |
| | Other Non-Tuberculous Diseases | — | 2 | — | — |
| Tuberculosis. | Pulmonary : | | | | |
| | Definite | — | — | — | — |
| | Suspected | — | 2 | — | — |
| | Non-Pulmonary : | | | | |
| | Glands | — | — | — | — |
| | Spine | — | — | — | — |
| | Hip | — | — | — | — |
| | Other Bones and Joints | — | — | — | — |
| | Skin | — | — | — | — |
| | Other Forms | — | — | — | — |
| Nervous System | Epilepsy | — | — | — | — |
| | Chorea | — | — | — | — |
| | Other Conditions | 32 | 1 | — | — |
| Deformities | Rickets | — | 2 | — | — |
| | Spinal Curvature | 3 | 3 | — | — |
| | Other Forms | 35 | 11 | — | — |
| Other Defects and Diseases | | 30 | 3 | — | 1 |

## TABLE 28.

## SECONDARY SCHOOLS.

### B. NUMBER OF INDIVIDUAL CHILDREN FOUND AT ROUTINE MEDICAL INSPECTION TO REQUIRE TREATMENT (EXCLUDING UNCLEANLINESS AND DENTAL DISEASES).

| *Group.* (1) | *Number of Children.* *Inspected.* (2) | *Number of Children.* *Found to require treatment.* (3) | *Percentage of Children found to require treatment.* (4) |
|---|---|---|---|
| Total .. | 1,563 | 380 | 24.3 |

## TABLE 29.

## SECONDARY SCHOOLS.

## DEFECTIVE VISION AND SQUINT.

| Defect or Disease. (1) | Number of Defects dealt with. | | | |
|---|---|---|---|---|
| | *Under the Authority's Scheme.* (2) | *Submitted to refraction by private practitioner or at Hospital, apart from the Authority's Scheme.* (3) | *Otherwise.* (4) | *Total.* (5) |
| Errors of Refraction (including Squint) .. | 83 | 46 | — | 129 |
| Other Defect or Disease of the Eyes .. | — | — | — | — |
| TOTAL .. | 83 | 46 | — | 129 |

Total number of Children for whom Spectacles were prescribed :—

| | | |
|---|---|---|
| (*a*) | Under the Authority's Scheme .. .. | 79 |
| (*b*) | Otherwise .. .. .. .. .. | 46 |

Total number of Children who obtained or received Spectacles :—

| | | |
|---|---|---|
| (*a*) | Under the Authority's Scheme .. .. | 63 |
| (*b*) | Otherwise .. .. .. .. .. | 62 |

## TABLE 30.

## SECONDARY SCHOOLS.

## TREATMENT OF DEFECTS OF NOSE AND THROAT.

## NUMBER OF DEFECTS.

| *Received Operative Treatment.* | | | *Received other forms of Treatment.* (4) | *Total number treated.* (5) |
|---|---|---|---|---|
| *Under the Authority's Scheme in Clinic or Hospital.* (1) | *By Private Practitioner or Hospital, apart from the Authority's Scheme.* (2) | *Total.* (3) | | |
| — | 1 | 1 | 1 | 2 |

## TABLE 31.

## OTHER HIGHER SCHOOLS.

## RETURN OF MEDICAL INSPECTIONS FOR THE YEAR ENDED 31st DECEMBER, 1928.

### ROUTINE MEDICAL INSPECTIONS.

| | *Age.* | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 11 | 12 | 13 | 14 | 15 | 16 | 17 | *Total.* |
| Boys .. .. | — | — | 63 | 85 | 46 | 9 | 1 | 204 |
| Girls .. .. | — | — | 37 | 59 | 28 | 16 | 1 | 141 |
| TOTAL .. | — | — | 100 | 144 | 74 | 25 | 2 | 345 |

# TABLE 32.

## OTHER HIGHER SCHOOLS.

## A. RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE YEAR ENDED 31st DECEMBER, 1928.

| Defect or Disease. (1) | | Routine Inspections. No. of Defects. Requiring Treatment. (2) | Routine Inspections. No. of Defects. Requiring to be kept under observation but *not* requiring Treatment. (3) | Special Inspections. No. of Defects. Requiring Treatment. (4) | Special Inspections. No. of Defects. Requiring to be kept under observation but *not* requiring Treatment. (5) |
|---|---|---|---|---|---|
| Malnutrition | | — | 1 | — | — |
| Skin | Ringworm : | | | | |
| | Scalp | — | — | — | — |
| | Body | — | — | — | — |
| | Scabies | — | — | — | — |
| | Impetigo | — | — | — | — |
| | Other Diseases (non-tuberculous) | 1 | 2 | — | — |
| Eye | Blepharitis | 1 | — | — | — |
| | Conjunctivitis | — | — | — | — |
| | Keratitis | — | — | — | — |
| | Corneal Opacities | — | — | — | — |
| | Defective Vision (excluding Squint) | 34 | 46 | — | — |
| | Squint | 2 | — | — | — |
| | Other Conditions | — | — | — | — |
| Ear | Defective Hearing | — | 2 | — | — |
| | Otitis Media | 1 | — | — | — |
| | Other Ear Diseases | 1 | 1 | — | — |
| Nose and Throat | Enlarged Tonsils only | 2 | 10 | — | — |
| | Adenoids only | — | — | — | — |
| | Enlarged Tonsils and Adenoids | 6 | 12 | — | — |
| | Other Conditions | 2 | 3 | — | — |
| Enlarged Cervical Glands (non-tuberculous) | | 1 | — | — | — |
| Defective Speech | | — | — | — | — |
| Teeth—Dental Diseases | | 47 | — | — | — |
| Heart and Circulation | Heart Disease : | | | | |
| | Organic | — | 5 | — | — |
| | Functional | — | 9 | — | — |
| | Anæmia | 6 | 1 | — | — |
| Lungs | Bronchitis | — | — | — | — |
| | Other Non-Tuberculous Diseases | — | — | — | — |
| Tuberculosis | Pulmonary : | | | | |
| | Definite | — | — | — | — |
| | Suspected | — | — | — | — |
| | Non-Pulmonary : | | | | |
| | Glands | — | — | — | — |
| | Spine | — | — | — | — |
| | Hip | — | — | — | — |
| | Other Bones and Joints | — | — | — | — |
| | Skin | — | — | — | — |
| | Other Forms | — | — | — | — |
| Nervous System | Epilepsy | — | — | — | — |
| | Chorea | — | — | — | — |
| | Other Conditions | — | — | — | — |
| Deformities | Rickets | — | 4 | — | — |
| | Spinal Curvature | 2 | — | — | — |
| | Other Forms | 7 | 3 | — | — |
| Other Defects and Diseases | | 9 | 4 | 1 | — |

## TABLE 33.

### B. NUMBER OF INDIVIDUAL CHILDREN FOUND AT ROUTINE MEDICAL INSPECTION TO REQUIRE TREATMENT (EXCLUDING UNCLEANLINESS AND DENTAL DISEASES).

| *Group.* (1) | *Number of Children.* *Inspected.* (2) | *Number of Children.* *Found to require treatment.* (3) | *Percentage of Children found to require treatment.* (4) |
|---|---|---|---|
| Total .. | 345 | 67 | 19.4 |

# TABLE 34.

## OTHER HIGHER SCHOOLS.

## DEFECTIVE VISION AND SQUINT.

| *Defect or Disease.* (1) | *Number of defects dealt with.* | | | |
|---|---|---|---|---|
| | *Under the Authority's Scheme.* (2) | *Submitted to refraction by private Practitioner or at Hospital, apart from the Authority's Scheme.* (3) | *Otherwise.* (4) | *Total.* (5) |
| Errors of Refraction (including Squint) .. | 37 | 18 | — | 55 |
| Other Defect or Disease of the Eyes .. | — | — | — | — |
| TOTAL .. | 37 | 18 | — | 55 |

Total number of Children for whom Spectacles were prescribed :—

| | | |
|---|---|---|
| (*a*) | Under the Authority's Scheme .. .. | 34 |
| (*b*) | Otherwise .. .. .. .. .. | 18 |

Total number of Children who obtained or received Spectacles :—

| | | |
|---|---|---|
| (*a*) | Under the Authority's Scheme .. .. | 29 |
| (*b*) | Otherwise .. .. .. .. .. | 23 |

## TABLE 35.

## OTHER HIGHER SCHOOLS.

## TREATMENT OF DEFECTS OF NOSE AND THROAT.

### NUMBER OF DEFECTS.

| *Received Operative Treatment.* | | | *Received other forms of Treatment.* (4) | *Total number treated.* (5) |
|---|---|---|---|---|
| *Under the Authority's Scheme, in Clinic or Hospital.* (1) | *By Private Practitioner or Hospital, apart from the Authority's Scheme.* (2) | *Total.* (3) | | |
| 2 | — | 2 | — | 2 |

## TABLE 36.

## BATHING POOLS.

Purity of the water as estimated by bacteriological examination at various states of the tide. Samples taken from the Crab and Lobster Fisheries and Bathing Places on thirteen occasions and from Sutton Harbour on ten occasions showed the following:—

| *Area from which Samples were obtained.* | *No. of Samples in which B. Coli was present in* | | |
|---|---|---|---|
| | *0.1 cc.* | *1 cc.* | *5 ccs. and over.* |
| (*a*) CRAB AND LOBSTER FISHERIES— | | | |
| The Needles . . . . | 7 | 12 | 13 |
| Millbay Pier . . . . | 7 | 11 | 11 |
| Firestone Bay . . . . | 8 | 13 | 13 |
| S.E. Drake's Island . . | 8 | 11 | 12 |
| S.W. Drake's Island . . | 7 | 10 | 11 |
| (*b*) BATHING PLACES— | | | |
| Ladies' Basin No. I . . | 5 | 10 | 11 |
| Ladies' Basin No. II . . | 5 | 10 | 11 |
| Tinside Bathing Beach | 6 | 11 | 11 |
| Promenade Pier . | 5 | 9 | 10 |
| Men's Basin . . . . | 6 | 10 | 10 |
| Devonport Ladies' Basin | 9 | 12 | 12 |
| Devonport Men's Basin | 6 | 11 | 12 |
| (*c*) SUTTON HARBOUR— | | | |
| Phœnix Wharf . . . . | 5 | 8 | 8 |
| Fish Quay, Barbican . . | 6 | 9 | 9 |
| North Quay, Barbican . . | 5 | 9 | 9 |

TABLE 37.

## MEDICAL INSPECTION OF ALIENS. PORT SANITARY DISTRICT OF PLYMOUTH.

### YEAR ENDED DECEMBER 31st, 1928.

| Total number of Aliens arriving at the Port, including those in transit and transmigrants but *excluding Alien Seamen.* | | No. of temporary visitors, *i.e.* Aliens whose stay in this Country will not exceed three months. | | | No. of Aliens who intend to settle permanently or remain in this Country for more than three months. | | |
|---|---|---|---|---|---|---|---|
| Total Number. | No. subjected to medical inspection. | Total Number. | No. subjected to medical Examination. | No. of Certificates issued. | Total Number. | No. subjected to medical Examination. | No. of Certificates issued. |
| 16,735 | 16,454 | 14,654 | 1 | 1 | 516 | 257 | 1 |
| | | | | | Residents returning | | 259 |

| ALIENS IN TRANSIT. | | | TRANSMIGRANTS. | |
|---|---|---|---|---|
| Total number. | No. subjected to Medical Examination. | No. of Certificates issued. | Total Number. | No. subjected to Medical Examination. |
| 981 | 7 | 1 | 584 | 16 |

The term " inspection " relates to the preliminary inspection of aliens as they pass before the Medical Inspector.

The term " Medical Examination " relates to detailed medical examination.

## PARTICULARS RELATING TO DETAILED MEDICAL EXAMINATION OF ALIENS.

| | |
|---|---|
| Aliens, who were subjected to detailed medical examination, and were not Certified by Medical Inspector .. .. .. .. .. .. .. .. .. .. .. | 280 |
| Number of each of the following certificates issued by the Medical Inspector of Aliens :— | |
| (*a*) Certificate that an alien is a lunatic, idiot or mentally deficient .. .. .. | 2 |
| (*b*) Certificate that, for medical reasons, it is undesirable that an alien should be permitted to land .. .. .. .. .. .. .. .. .. .. .. | nil. |
| (*c*) Certificate that an alien is suffering from some disease, defects or deformity which may interfere with his capacity to support himself or his dependents .. .. .. | nil. |
| (*d*) Certificate that an alien is suffering from one of the acute infectious diseases.. .. | 1 |
| (*e*) Certificate that for the purposes of an adequate medical examination it is necessary for the alien to land in order that he may be examined ashore .. .. .. .. | nil. |

## TRANSMIGRANTS.

| | |
|---|---|
| Number of certificates of the cleansing of verminous transmigrants given by the Medical Inspector of Aliens to the Immigration Officer .. .. .. .. .. .. .. .. .. | nil. |
| Number of medical certificates in respect of transmigrants suffering from trachoma, favus, etc., given to the Immigration Officer .. .. .. .. .. .. .. .. .. | nil. |

## PARTICULARS RELATING TO ALIEN TRAFFIC.

| | |
|---|---|
| Total number of passenger vessels carrying aliens which arrived during the year .. .. .. | 695 |
| Number of passenger vessels dealt with by Medical Inspector of Aliens .. .. .. .. | 694 |
| Total number of cargo vessels carrying alien passengers which arrived during the year .. .. | 51 |
| Number of cargo vessels dealt with by Medical Inspector of Aliens .. .. .. .. | 51 |
| Any other vessels in connection with which the Medical Inspector has had to take action in regard to aliens ... ... .. .. .. .. .. .. .. .. .. ... .. | 3 |

TABLE 38.

## AMOUNT OF SHIPPING ENTERING THE PORT DURING THE YEAR 1928.

| | Number. | Tonnage. | Number Inspected by the Port M.O. | Number Inspected by the Insp. | Number reported to be defective. | Number of vessels on which defects were remedied. |
|---|---|---|---|---|---|---|
| FOREIGN— | | | | | | |
| Steamers .. | 1,005 | 5,860,923 | 719 | 409 | 50 | 50 |
| Motor .. | 110 | 182,359 | 48 | 77 | 3 | 3 |
| Sailing .. | 131 | 6,089 | 26 | 130 | 14 | 14 |
| Fishing | 83 | 3,897 | 4 | 83 | 7 | 7 |
| Total Foreign | 1,329 | 6,053,268 | 797 | 699 | 74 | 74 |
| COASTWISE— | | | | | | |
| Steamers .. | 923 | 661,552 | 55 | 912 | 35 | 35 |
| Motor .. | 297 | 11,074 | 16 | 295 | 2 | 2 |
| Sailing .. | 221 | 11,149 | 21 | 219 | 10 | 10 |
| Fishing .. | 99 | 3,845 | 2 | 99 | 6 | 6 |
| Total Coastwise | 1,540 | 687,620 | 94 | 1,525 | 53 | 53 |
| Grand Total .. | 2,869 | 6,740,888 | 891 | 2,224 | 127 | 127 |

## TABLE 39.

## RECORDS OF VESSELS INSPECTED, TONNAGES, CREWS, PASSENGERS, SICKNESSES, ETC., FOR THE TEN YEARS ENDED 1928.

| YEAR. | No. of vessels Inspected. | NATIONALITY. |  | No. of crews on board. | Registered Tonnage. | PASSENGERS. |  | SICKNESS. |  | Deaths. | Landed for Treatment. | INSANITARY |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | British. | Foreign. |  |  | On Board. | Landing. | during voyage. | Infectious. |  |  | No. of vessels. | No. of defects. |
| 1919 | 1,561 | 1,340 | 221 | 65,775 | 2,056,621 | 122,326 | 76,584 | 3,942 | 2,814 | 114 | 7 | 124 | 634 |
| 1920 | 1,879 | 1,302 | 577 | 86,814 | 2,172,097 | 130,543 | 19,777 | 898 | 796 | 83 | 5 | 133 | 663 |
| 1921 | 1,950 | 1,475 | 475 | 100,830 | 2,729,713 | 131,077 | 15,892 | 507 | 350 | 60 | 6 | 154 | 686 |
| 1922 | 2,056 | 1,543 | 513 | 132,266 | 3,642,135 | 117,293 | 22,596 | 312 | 487 | 65 | 2 | 147 | 610 |
| 1923 | 2,195 | 1,571 | 624 | 142,960 | 4,197,209 | 105,805 | 22,657 | 501 | 301 | 52 | 1 | 160 | 542 |
| 1924 | 2,403 | 1,769 | 634 | 166,106 | 4,228,321 | 122,266 | 25,132 | 732 | 526 | 48 | 3 | 174 | 737 |
| 1925 | 2,657 | 1,900 | 757 | 186,184 | 4,884,659 | 158,408 | 38,406 | 625 | 463 | 59 | — | 179 | 912 |
| 1926 | 2,967 | 2,208 | 759 | 208,693 | 5,564,945 | 176,731 | 40,264 | 609 | 338 | 73 | 8 | 161 | 889 |
| 1927 | 3,282 | 2,527 | 755 | 230,809 | 6,196,506 | 193,031 | 46,196 | 630 | 365 | 47 | 26 | 172 | 847 |
| 1928 | 2,869 | 2,155 | 714 | 251,553 | 6,740,888 | 208,187 | 43,963 | 853 | 448 | 61 | 131 | 127 | 690 |

TABLE 40.

## SUMMARY OF WORK FOR THE YEAR.

| | |
|---|---|
| Number of Vessels Inspected— | |
| From Coastwise—Steam | 923 |
| Sail | 221 |
| Motor | 297 |
| Fishing | 99 |
| From Foreign—Steam | 1,005 |
| Sail | 131 |
| Motor | 110 |
| Fishing | 83 |
| | 2,869 |

| | |
|---|---|
| Number of Vessels Insanitary | 127 |
| Number of Sanitary Defects | 690 |
| Registered Tonnage | 6,740,888 |
| Number of Seamen on board | 251,553 |
| Admitted to Hospital Ship "*Flamingo*" | 1 |
| Admitted to City Hospital | 1 |

---

## DETAILED LIST OF SANITARY DEFECTS FOR THE YEAR.

During the year 127 vessels were found to be in an insanitary condition, the following defects being notified to the Masters, Owners or Agents :—

| *No. of Defects* | *Nature of Defects.* |
|---|---|
| 3 | Bathrooms to be cleansed, painted or limewashed. |
| 41 | Bedding (sets of) to be cleansed, destroyed or replaced. |
| 9 | Bedding (sets of) to be fumigated. |
| 2 | Bilges to be pumped out and cleansed. |
| 34 | Bunks to be cleansed and painted. |
| 9 | Bunks to be fumigated. |
| 3 | Carcases to be removed from foreshores of the harbour. |
| 8 | Chain lockers to be freed from mud, cleansed and limewashed. |
| 2 | Chain lockers to be fumigated. |
| 5 | Cookhouses to be cleansed, painted or limewashed. |
| 5 | Cooking utensils (sets of) to be cleansed on the inside. |
| 16 | Cowls to be fitted to ventilators. |
| 77 | Crews' quarters to be cleansed, painted or limewashed. |
| 8 | Crews' quarters and cabins to be cleansed and painted after fumigation. |
| 1 | Deck light to be repaired and made tight. |
| 12 | Decks to be cleared of offensive matter, washed down and cleansed after discharge of cargoes. |
| 6 | Decks over crews' quarters to be caulked and made tight. |
| 1 | Flange round funnelling of ventilator to be renewed. |
| 8 | Flushing cisterns to be repaired or replaced by new. |
| 2 | Flushing pipes to be repaired or replaced by new. |
| 1 | Foscle to be cleansed, painted or limewashed. |
| 70 | Food lockers to be cleansed, painted or limewashed. |
| 5 | Food lockers to be repaired. |
| 1 | Food scattered over bunks to be stored in food lockers. |
| 9 | Funnellings to stoves to be repaired or replaced by new. |
| 1 | Hand rail to iron gangway to be repaired. |
| 4 | Hatchways leading to crews' quarters to be repaired and made tight. |
| 9 | Holds to be cleansed after discharging cargoes. |
| 12 | Iron plates to be replaced by new and made watertight. |
| 1 | Lamp in crews' quarters to be repaired and made workable. |
| 1 | Lazarette to be fumigated. |
| 2 | Lockers to be cleansed and painted. |
| 1 | Metal protector to stove to be repaired. |
| 1 | Rabbit to be removed from water closet. |
| 18 | Rats' guards to be fitted on ropes leading from ship to shore. |
| 13 | Refuse and rubbish to be removed from crews' quarters. |
| 12 | Rubber washers to be fitted to side lights. |
| 6 | Sails and spare gear to be removed from crews' quarters and stowed in bins fitted for the purpose. |
| 3 | Sheep skins to be removed and destroyed. |
| 29 | Side lights to be repaired and made tight. |
| 1 | Steam pipe running through crews' quarters to be repaired. |
| 2 | Steerages to be cleansed, painted or limewashed. |
| 32 | Storerooms to be cleansed, painted or limewashed. |
| 1 | Storeroom to be fumigated. |
| 2 | Stores and part cargo to be removed from crews' quarters. |
| 5 | Stoves in crews' quarters to be repaired. |
| 52 | Ventilators (Hit and Miss) to be repaired and made workable. |
| 27 | Ventilators to be freed from packing and coverings. |
| 1 | Waste pipe to wash-hand basin to be repaired or renewed. |
| 17 | Water barrels to be cleansed on the inside prior to a fresh supply being taken aboard. |
| 3 | Water tanks to be cleansed on the inside prior to a fresh supply being taken aboard. |
| 82 | Water closets to be thoroughly cleansed, painted or limewashed and repaired. |
| 2 | Water closet pans to be replaced by new. |
| 12 | Plague precautions issued and carried into effect. |
| 690 | |

All vessels arriving from Plague, Cholera, Yellow Fever, Smallpox or Typhus infected Ports and those arriving with cargoes of grain have been dealt with under either the Plague Regulations, 1907, the Port Sanitary Authorities (Infectious Diseases) Regulations, 1920, or the Rats and Mice (Destruction) Act, 1919.

The foregoing tabulated statement of defects found on inspection were, in the majority of cases, taken in hand immediately on Informal Notices being served. In a few instances, however, time and circumstances did not permit of the cleansing and painting or repairs being carried out here ; consequently permission was given to remedy the defects during the round voyage or at their terminal port, a duplicate notice being forwarded to the Medical Officer of Health of the Port of destination.

ROYAL COL
LIBRARY
-3 JUN 29

TABLE 41.

## CHIEF BRITISH AND FOREIGN PORTS WITH WHICH PLYMOUTH HAS TRADE.

### IMPORTS FROM FOREIGN.

| | |
|---|---|
| Antwerp | Barley, Biscuits, Carrots, Compound, Geneva, Lard, Milk (condensed), Mineral Waters, Maize, Oats, Onions, Parsnips, Potatoes, Sugar, etc. ; Hardware, Toys, etc. |
| Amsterdam and Rotterdam | Cake, Cocoa Butter, Cheese, Coffee, Fruit, Margarine, Meat (Tinned), Milk, Preserves, Tea, Sugar, Vegetables, etc. ; Artificial Flowers, Carpets, Candles, Cotton Goods, Electric Batteries, Enamelware, Hardware, Machinery, Matches, Musical Instruments, Rope, Woodware, etc. |
| Basrah and Karachi | Grain. |
| Baltimore and Philadelphia | Grain and Oil. |
| Bona | Phosphates. |
| Brest, Ghent, La Paix, Lazardrieux, Paimpol, Perros, Plougastel, Port Blanc, Roscoff, St. Malo, Treguier | Carrots, Cauliflowers, Green Peas, Onions, Parsnips, Peaches, Pears, Plums, Potatoes, Strawberries, Cider and Brandy. |
| Buenos Ayres, Bahia Blanca, La Plata, River Plate, Rosario, St. Nicholas, Tampico | Grain. |
| Gothenburg | Juice, Meats, etc. ; Matches, Paper, Timber, Wood Goods, etc. |
| Hamburg and Bremen | Carrots, Cheese, Cream of Tartar, Chocolate, Fruit Pulp, Lard, Onions, Potatoes, Salt, Sugar, etc.; Carpets, Clothes Pegs, Glass, Granite, Hardware, Toys, etc. |
| Iquique | Nitrate. |
| Melbourne and Sydney | Grain. |
| Montreal, Quebec and Vancouver | Grain. |
| Constanza | Grain. |
| Odessa, Novorossisk, Taganrog and Black Sea Ports | Grain. |
| St. John's, Newfoundland | Codfish. |

### IMPORTS COASTWISE.

| | |
|---|---|
| Aberdeen, Dundee and Kirkcaldy | Fish, Flour, Jams, Lard, Oatmeal, Potatoes, |
| Avonmouth | Grain and Oil. |
| Bristol | Flour, Fruit, Vegetables, Sugar, Cattle Food, etc., Glucose, Oils, Paints, etc. |
| Belfast, Dublin and Waterford | Bacon, Fruit, Vegetables, Oats, Margarine, etc., Cotton Goods, Government Stores, and Wool. |
| Birkenhead | Flour and Uveco. |
| Blyth, Newcastle and Sunderland | Coal. |
| Cardiff and Swansea | Coal ; Canned Goods, Flour and Sugar. |
| Channel Islands | Fats of sorts, Fruit and Vegetables ; Rags and Bones. |
| Cork | Butter, Eggs, Oats and Salted Pork. |
| Glasgow, London, Liverpool and Southampton | Canned and Bottled Goods, Dried, Fresh and Preserved Fruits, Flour, Sugar, Vegetables, Wines, etc. ; Linoleum, Skins, Woollen Goods, etc. |
| Hull and Leith | Salt Fish, Fruit, Rice and Canned Goods. |

### EXPORTS.

Fish is sent to Spain and Italy in barrels ; trawlers also take large cargoes to Germany.

Bone Meal, Glue, Metal, Skins and Tallow are sent to Germany. China Clay is sent to America, Japan, Holland and Sweden.

Hemp, Rope, Tallow and Whisky are sent to Belgium.

TABLE II.

# CHIEF EXPORTS AND IMPORTS OF PORTS WITH WHICH PLYMOUTH HAS TRADE.

## IMPORTS FROM [illegible].

| | |
|---|---|
| Antwerp . . . . | Barley, Beans, Butter, Cheese, [illegible] Lard, Milk (condensed), Mineral Waters, Malt, Oats, Onions, Turnips, Potatoes, Sugar, etc.; Hardware, Toys, etc. |
| Amsterdam and Rotterdam | Cake, Cocoa, Butter, Cheese, [illegible] Margarine, Meat (tinned), Milk, Preserves and Sugar, Vegetables, etc.; Artificial Flowers, Carpets, Candles, Cotton Goods, Electric Fittings, Enamelware, Hardware, Machinery, Matches, Musical Instruments, Soap, Woollens, etc. |
| Huelva and Pomaron . . | Ores. |
| Baltimore and Philadelphia | Grain and Oil. |
| Sfax . . . . | Phosphates. |
| [illegible], La Plata, [illegible], Campana, [illegible], Port [illegible], San Nicolas, [illegible]<br>Buenos Ayres, Bahia Blanca, La Plata, [illegible], San Nicolas, [illegible] | Cereals, Feedstuffs, [illegible], [illegible], [illegible], [illegible], [illegible] [illegible] and [illegible]. |
| [illegible] . . . . . | [illegible] |
| | [illegible], [illegible], [illegible], [illegible] |

TABLE 42.

## SHOWING NATURE AND QUANTITY OF FOODS INSPECTED DURING THE YEAR 1928.

### *CURED AND SALTED MEATS.*

| | Tons | cwts. | qrs. | lbs. |
|---|---|---|---|---|
| Bacon ... ... | 11 | 17 | 1 | 22 |
| Bellies ... ... | 9 | 10 | 0 | 0 |
| Codfish, salted ... | 5 | 7 | 0 | 0 |
| Dripping ... ... | 0 | 0 | 2 | 0 |
| Fats of sorts ... | 9 | 8 | 0 | 0 |
| Hams, dry salted ... | 20 | 15 | 0 | 0 |
| Hams, boraxed ... | 0 | 8 | 2 | 20 |
| Herrings (in brine) | | | | 4 barrels |
| Pigs' Feet ... ... ... | | | | 3 kegs |
| Pigs' Plucks ... ... | | | | 1 keg |
| Pork, dry salted ... | 1 | 0 | 0 | 0 |
| Provisions, salted ... ... | | | | 1 barrel |

### *VEGETABLES AND FRUIT.*

| | Tons | cwts. | qrs. | lbs. |
|---|---|---|---|---|
| Apples ... ... | 6 | 13 | 1 | 14 |
| Bananas ... ... | | | | 7 crates |
| Brussel Sprouts ... | 1 | 19 | 0 | 0 |
| Cabbage ... ... | 0 | 19 | 0 | 0 |
| Carrots ... ... | 33 | 13 | 0 | 0 |
| Cauliflowers ... | 3 | 5 | 0 | 0 |
| Cherries ... ... | | | | 4 c/s |
| Cucumbers ... | | | | 10 c/s |
| Grapes ... ... | 1 | 9 | 2 | 15 |
| Grape Fruit ... | | | | 27 c/s |
| Lemons ... ... | | | | 115 c/s |
| Mandarines ... | | | | 2 c/s |
| Melons ... ... | | | | 8 c/s |
| Onions ... ... | 33 | 9 | 0 | 0 |
| Oranges ... ... | | | | 519 c/s |
| Peaches ... ... | | | | 17 crates |
| Pears ... ... | 5 | 18 | 0 | 0 |
| Peas ... ... | 3 | 11 | 0 | 14 |
| Parsnips ... ... | 24 | 10 | 0 | 0 |
| Plums ... ... | | | | 20 c/s |
| Pomegranates ... | | | | 8 c/s |
| Potatoes ... ... | 230 | 16 | 0 | 0 |
| Rhubarb ... ... | | | | 5 c/s |
| Strawberries ... | 7 | 2 | 1 | 20 |
| Tomatoes ... ... | 4 | 6 | 3 | 7 |
| Turnip Tops ... | | | | 24 bags |
| Vegetables (in brine) | | | | 15 hogsheads |

### *DRIED FRUIT, ETC.*

| | |
|---|---|
| Almonds ... ... ... | 17 c/s |
| Apple Rings ... ... | 13 c/s |
| Cherries, Crystallised ... | 4 c/s |
| Currants ... ... ... | 63 c/s |
| Dates ... ... ... | 33 c/s |
| Figs ... ... ... | 22 c/s |
| Fruit, Dried ... ... | 18 c/s |
| Lemon Peel ... ... | 8 c/s |
| Mixed Peel ... ... | 1 c/s |
| Muscatels ... ... ... | 8 c/s |
| Nuts of sorts ... ... | 23 bags |
| Plums, Dry ... ... | 34 c/s |
| Raisins ... ... ... | 35 c/s |
| Sultanas ... ... ... | 43 c/s |

### *CANNED AND BOTTLED GOODS.*

| | |
|---|---|
| Canned Cherries ... ... | 22 c/s |
| ,, Chicken and Ham | 5 c/s |
| ,, Corned Beef ... | 246 c/s |
| ,, Crab ... ... | 20 c/s |
| ,, Crayfish ... ... | 3 c/s |
| ,, Fruits ... ... | 580 c/s |
| ,, Fruit Pulp ... | 349 c/s |
| ,, Fruit Salad ... | 25 c/s |
| ,, Lobster ... ... | 5 c/s |
| ,, Milk ... ... | 46 c/s |
| ,, Pilchards ... ... | 27 c/s |
| ,, Brawn ... ... | 6 c/s |

### *Canned and Bottled Goods.—contd.*

| | |
|---|---|
| Canned Prawns ... ... | 1 c/s |
| ,, Pork and Beans ... | 10 c/s |
| ,, Peas ... ... | 2 c/s |
| ,, Salad Oil ... ... | 3 c/s |
| ,, Salmon ... ... | 136 c/s |
| ,, Sardines ... ... | 61 c/s |
| ,, Soups ... ... | 4 c/s |
| ,, Tomatoes ... ... | 34 c/s |
| ,, Tomato-purie ... | 8 c/s |
| ,, Tongues, Ox ... | 94 c/s |
| ,, Tomato and Herrings | 6 c/s |
| Bottled Bovril ... ... | 2 c/s |
| ,, Gooseberries ... | 2 c/s |
| ,, Jams ... ... | 35 c/s |
| ,, Sauce ... ... | 7 c/s |
| ,, Tomato Ketchup | 7 c/s |

### *MISCELLANEOUS.*

| | Tons | cwts. | qrs. | lbs. |
|---|---|---|---|---|
| Arrowroot ... ... ... | | | | 1 c/s |
| Asparagus ... ... ... | | | | 3 c/s |
| Baking Powder ... ... | | | | 11 c/s |
| Barley ... ... | 6 | 2 | 0 | 0 |
| Barley, Pearl ... ... | | | | 9 bags |
| Beans ... ... ... | | | | 15 bags |
| Biscuits ... ... ... | | | | 46 c/s |
| Butter ... ... ... | | | | 40 c/s |
| Breakfast Rolls ... ... | | | | 2 c/s |
| Candy ... ... ... | | | | 3 c/s |
| Caraway Seeds ... ... | | | | 4 bags |
| Cheeses ... ... ... | | | | 59 crates |
| Chicory ... ... ... | | | | 1 bag |
| Chocolate ... ... ... | | | | 11 c/s |
| Cocoa ... ... ... | | | | 3 c/s |
| Cocoa Powder ... ... | | | | 2 casks |
| Cocoanut ... ... ... | | | | 14 c/s |
| Coffee ... ... ... | | | | 45 c/s |
| Coffee Berries ... ... | | | | 1 bag |
| Coffee Extract ... ... | | | | 113 c/s |
| Condensed Milk ... ... | | | | 20 casks |
| Confectionery ... ... | | | | 62 c/s |
| Cornflour ... ... ... | | | | 3 c/s |
| Eggs ... ... ... | | | | 10 c/s |
| Essence of Rennet ... | | | | 2 c/s |
| Flour ... ... | 3 | 7 | 0 | 0 |
| Groats ... ... ... | | | | 1 bag |
| Gripe Water ... ... | | | | 1 c/s |
| Ginger ... ... ... | | | | 9 c/s |
| Honey ... ... ... | | | | 3 c/s |
| Lard ... ... ... | | | | 22 c/s |
| Lard Compound ... ... | | | | 18 c/s |
| Macaroni ... ... ... | | | | 13 c/s |
| Maize ... ... | 82 | 6 | 0 | 0 |
| Maize, Flaked ... ... | | | | 2 bags |
| Margarine ... ... ... | | | | 50 c/s |
| Meat Extract ... ... | | | | 1 c/s |
| Milk, Dried ... ... | | | | 9 c/s |
| Oats ... ... | 11 | 14 | 0 | 0 |
| Oats, porridge ... ... | | | | 22 c/s |
| Oatmeal ... ... ... | | | | 6 bags |
| Oil of Lemon ... ... | | | | 1 c/s |
| Peas ... ... ... | | | | 38 bags |
| Pepper ... ... ... | | | | 6 kegs |
| Rice ... ... ... | | | | 48 bags |
| Rice Cones ... ... | | | | 3 bags |
| Salt ... ... | 0 | 1 | 0 | 0 |
| Saffron ... ... ... | | | | 1 c/s |
| Spice ... ... ... | | | | 1 keg |
| Sugar ... ... | 4 | 9 | 0 | 0 |
| Tapioca ... ... ... | | | | 10 bags |
| Tea ... ... ... ... | | | | 4 chests |
| Wheat ... ... | 4 | 10 | 0 | 0 |

ROYAL COLLEGE OF SURGEONS OF ENGLAND
-3 JUN 29
LIBRARY

TABLE 43.

## SHOWING NATURE AND QUANTITY OF FOODS CONDEMNED DURING THE YEAR 1928.

| | | Tons | cwts. | qrs. | lbs. |
|---|---|---|---|---|---|
| *DIVISION II.* | | | | | |
| Boraxed Hams (104) | | 0 | 8 | 2 | 20 |
| Codfish (Dry Salted) | | 0 | 9 | 0 | 12 |
| Fats of sorts | | 9 | 5 | 3 | 12 |
| *DIVISION III* | | | | | |
| Apricots | 9 cans | 0 | 0 | 0 | 22½ |
| Blackberries | 1 can | 0 | 0 | 0 | 1 |
| Brawn | 1 can | 0 | 0 | 1 | 6 |
| Coffee | 7 bottles | 0 | 0 | 0 | 6½ |
| Condensed Milk | 7 tins | 0 | 0 | 0 | 3½ |
| Corned Beef | 218 cans | 0 | 8 | 2 | 18 |
| Crab | 3 cans | 0 | 0 | 0 | 3 |
| Fruit Pulp | 91 cans | 0 | 10 | 3 | 12 |
| Herrings and Tomatoes | 2 cans | 0 | 0 | 0 | 2 |
| Jam | 5 jars | 0 | 0 | 0 | 10 |
| Loganberries | 3 cans | 0 | 0 | 0 | 6 |
| Lunch Tongues | 22 cans | 0 | 0 | 4 | 11½ |
| Olive Oil | 2 bottles | 0 | 0 | 0 | 2½ |
| Peaches | 17 cans | 0 | 0 | 1 | 14½ |
| Pears | 6 cans | 0 | 0 | 0 | 15 |
| Pilchards | 5 cans | 0 | 0 | 0 | 6 |
| Pilchards and Tomatoes | 1 can | 0 | 0 | 0 | 1 |
| Pineapples | 366 cans | 0 | 5 | 3 | 9½ |
| Plums | 3 cans | 0 | 0 | 0 | 7½ |
| Pork and Beans | 4 cans | 0 | 0 | 0 | 8 |
| Salmon | 26 cans | 0 | 0 | 0 | 26 |
| Sardines | 4 cans | 0 | 0 | 0 | 2 |
| Tomatoes | 3 cans | 0 | 0 | 0 | 7½ |
| *DIVISION IV.* | | | | | |
| Apples | | 2 | 10 | 1 | 3 |
| Brussel Sprouts | | 0 | 7 | 0 | 22 |
| Cabbage | | 0 | 6 | 0 | 0 |
| Carrots | | 11 | 12 | 0 | 0 |
| Cauliflowers | | 1 | 7 | 0 | 0 |
| Cherries | | 0 | 0 | 1 | 20 |
| Grapes | | 0 | 3 | 3 | 0 |
| Grape Fruit | | 0 | 2 | 0 | 0 |
| Lemons | | 0 | 18 | 0 | 0 |
| Onions | | 4 | 5 | 0 | 0 |
| Oranges | | 3 | 16 | 3 | 14 |
| Parsnips | | 5 | 10 | 2 | 0 |
| Peaches | | 0 | 1 | 2 | 12 |
| Pears | | 0 | 16 | 2 | 16 |
| Peas | | 0 | 0 | 1 | 0 |
| Plums | | 0 | 0 | 2 | 1 |
| Potatoes | | 66 | 3 | 1 | 0 |
| Rhubarb | | 0 | 2 | 1 | 0 |
| Strawberries | | 0 | 5 | 0 | 15 |
| Tomatoes | | 0 | 6 | 1 | 4 |
| Turnip Tops | | 0 | 18 | 0 | 0 |
| *DIVISION V.* | | | | | |
| Barley | | 0 | 18 | 0 | 0 |
| Maize | | 9 | 3 | 3 | 13 |
| *MISCELLANEOUS.* | | | | | |
| Condensed Milk | 20 casks | 4 | 18 | 2 | 23 |
| Confectionery | | 0 | 0 | 0 | 27 |
| TOTAL CONDEMNATIONS FOR YEAR | | 126 | 5 | 2 | 23½ |

### *DISPOSAL.*

As far as possible all foodstuffs condemned have been disposed of to the best advantage, viz. :—

*Division II.*—Boraxed Hams exported or re-exported abroad, or used for ships' stores ; Codfish removed to the Refuse Destructor ; Fats of sorts for the manufacture of soap and candles.

*Division III.*—Canned and bottled goods removed to the Refuse Destructor, a few cans and bottles being jettisoned.

*Division IV.*—The bulk disposed of for pig food ; remainder removed to the Refuse Destructor and small quantities jettisoned.

*Division V.*—For pig and poultry food and small quantities removed to the Refuse Destructor.

*Miscellaneous.*—Condensed Milk for the manufacture of confectionery only ; confectionery removed to the Refuse Destructor.

ROYAL COLLEGE OF SURGEONS OF ENGLAND
-3 JUN 29
LIBRARY

TABLE 44.

## CASES OF INFECTIOUS SICKNESS DEALT WITH DURING THE YEAR 1928.

| *Disease.* | *Number of Cases Investigated.* | | | *Totals.* |
|---|---|---|---|---|
| | *Disposed of during voyage* | *Landed at Plymouth.* | *Proceeded in Ship.* | |
| Smallpox .. .. | 1 | — | — | 1 |
| Scarlet Fever .. | 1 | — | 4 | 5 |
| Diphtheria .. .. | — | — | 7 | 7 |
| Typhoid Fever .. | 4 | — | 12 | 16 |
| Pneumonia .. .. | 13 | 4 | 16 | 33 |
| Plague .. .. | — | 1 | — | 1 |
| Dysentery .. .. | 7 | 3 | 9 | 19 |
| Puerperal Pyrexia .. | 1 | — | — | 1 |
| Erysipelas .. .. | — | — | 2 | 2 |
| Respiratory Tuberculosis .. .. | 7 | 12 | 21 | 40 |
| Other Forms Tuberculosis .. | 2 | 1 | 4 | 7 |
| Malaria (contracted abroad) .. | 10 | 13 | 136 | 159 |
| Chicken-pox .. | 4 | 5 | 9 | 18 |
| Measles .. .. | 6 | 2 | 24 | 32 |
| Whooping Cough .. | 1 | 1 | 5 | 7 |
| Paratyphoid Fever .. | — | — | (3) | (3) |
| Blackwater Fever .. | — | 2 | 1 | 3 |
| Dengue Fever .. | 2 | — | 2 | 4 |
| Influenza .. .. | — | 3 | 9 | 12 |
| Mumps .. .. | 2 | 2 | 14 | 18 |
| Scabies .. .. | — | — | 2 | 2 |
| Sprue .. .. | 1 | — | — | 1 |
| Venereal Disease .. | 13 | 8 | 39 | 60 |
| TOTALS (excluding 3 paratyphoids) | 75 | 57 | 316 | 448 |

TABLE 45.

## CASES OF INFECTIOUS SICKNESS DEALT WITH DURING THE YEARS 1923–1927 INCLUSIVE.

| Disease. | 1923 | | | | 1924 | | | | 1925 | | | | 1926 | | | | 1927 | | | | Grand Total. | Five Years Average. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | How Disposed of | | | | How Disposed of | | | | How Disposed of | | | | How Disposed of | | | | How Disposed of | | | | | |
| | During Voyage. | Landed at Plymouth. | Proceeded in Ship. | Total. | During Voyage. | Landed at Plymouth. | Proceeded in Ship. | Total. | During Voyage. | Landed at Plymouth. | Proceeded in Ship. | Total. | During Voyage. | Landed at Plymouth. | Proceeded in Ship. | Total. | During Voyage. | Landed at Plymouth. | Proceeded in Ship. | Total. | | |
| Smallpox .. .. .. | 3 | 1 | — | 4 | 9 | 3 | — | 12 | 7 | — | — | 7 | 3 | 1 | 1 | 5 | 7 | — | — | 7 | 35 | 7.0 |
| Scarlet Fever .. .. | — | — | 1 | 1 | 1 | — | 5 | 6 | 2 | — | 2 | 4 | 1 | — | 1 | 2 | — | — | 4 | 4 | 17 | 3.4 |
| Diphtheria .. .. | 1 | — | — | 1 | — | — | 2 | 2 | — | 2 | 1 | 3 | 1 | 1 | — | 2 | — | — | 1 | 1 | 9 | 1.8 |
| Enteric or Typhoid Fever | 3 | — | 1 | 4 | 6 | 3 | 6 | 15 | 5 | 2 | 3 | 10 | 8 | 2 | 4 | 14 | 10 | 1 | 6 | 17 | 60 | 12.0 |
| Pneumonia .. .. | 7 | 2 | 11 | 20 | 14 | 5 | 13 | 32 | 7 | 5 | 11 | 23 | 13 | 5 | 5 | 23 | 9 | 1 | 8 | 18 | 116 | 23.2 |
| Cholera .. .. .. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | 1 | 1 | .2 |
| Acute Poliomyelitis .. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 1 | 1 | .2 |
| Encephalitis Lethargica | — | — | 1 | 1 | — | — | — | — | — | 1 | — | 1 | — | — | — | — | — | — | — | — | 2 | .4 |
| Dysentery .. .. | 3 | 2 | 1 | 6 | 4 | 1 | 4 | 9 | 17 | 4 | 7 | 28 | 7 | 4 | 11 | 22 | 7 | 1 | 4 | 12 | 77 | 15.4 |
| Erysipelas .. .. | — | — | — | — | — | — | 2 | 2 | — | — | 1 | 1 | — | 1 | 3 | 4 | — | — | 3 | 3 | 10 | 2.0 |
| Respiratory Tuberculosis | 5 | 5 | 12 | 22 | 18 | 7 | 20 | 45 | 9 | 5 | 22 | 36 | 8 | 5 | 12 | 25 | 13 | 7 | 20 | 40 | 168 | 33.6 |
| Other Forms .. .. | 1 | 1 | 1 | 3 | — | — | — | — | 1 | — | 2 | 3 | 3 | 1 | 2 | 6 | — | — | — | — | 12 | 2.4 |
| Malaria contracted abroad | 77 | 12 | 32 | 121 | 85 | 11 | 80 | 176 | 145 | 34 | 34 | 213 | 36 | 12 | 38 | 86 | 74 | 3 | 64 | 141 | 737 | 147.4 |
| Chicken-pox .. .. | 5 | — | 6 | 11 | 1 | 2 | 9 | 12 | 1 | 2 | 11 | 14 | 6 | 3 | 8 | 17 | 1 | 1 | 6 | 8 | 62 | 12.4 |
| Measles .. .. .. | 10 | 3 | 48 | 61 | 58 | 5 | 12 | 75 | 37 | 3 | 15 | 55 | 27 | 2 | 18 | 47 | 10 | 2 | 8 | 20 | 258 | 51.6 |
| Whooping Cough .. | 2 | 4 | 3 | 9 | — | — | 2 | 2 | — | 1 | 3 | 4 | 1 | 3 | 5 | 9 | 1 | — | 6 | 7 | 31 | 6.2 |
| Paratyphoid Fever .. | 2 | — | 1 | 3 | 1 | — | — | 1 | — | — | 2 | 2 | 1 | — | 1 | 2 | 1 | — | 2 | 3 | 11 | 2.2 |
| Alastrim .. .. .. | — | — | 1 | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | .2 |
| Beri Beri .. .. .. | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 1 | 2 | — | — | — | — | 2 | .4 |
| Blackwater Fever .. | — | 1 | 3 | 4 | 2 | — | 1 | 3 | — | — | 1 | 1 | 1 | — | 2 | 3 | — | — | 1 | 1 | 12 | 2.4 |
| Dengue Fever .. .. | — | — | — | — | 52 | — | 37 | 89 | 1 | — | 7 | 8 | 2 | — | — | 2 | — | — | 3 | 3 | 102 | 20.4 |
| Influenza .. .. .. | 7 | 1 | 6 | 14 | 10 | 1 | 10 | 21 | 7 | — | 4 | 11 | 14 | 4 | 10 | 28 | 11 | 3 | 7 | 21 | 95 | 19.0 |
| Leprosy .. .. .. | 1 | — | — | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | .2 |
| Mumps .. .. .. | 1 | — | 8 | 9 | — | 2 | 1 | 3 | 2 | 1 | 5 | 8 | — | — | 8 | 8 | 3 | 1 | 6 | 10 | 38 | 7.6 |
| Ringworm .. .. | — | — | — | — | — | 1 | — | 1 | — | — | — | — | — | — | — | — | — | — | — | — | 1 | .2 |
| Scabies .. .. .. | — | — | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 1 | — | — | — | — | 1 | .2 |
| Sleeping Sickness .. | — | — | — | — | — | — | — | — | — | 1 | — | 1 | — | — | — | — | — | — | — | — | 1 | .2 |
| Venereal Disease .. | 1 | 1 | 3 | 5 | 6 | 4 | 10 | 20 | 9 | 9 | 12 | 30 | 13 | 3 | 12 | 28 | 15 | 5 | 29 | 49 | 132 | 26.4 |
| Yellow Fever .. .. | — | — | — | — | — | — | — | — | — | — | — | — | 2 | — | — | 2 | 1 | — | — | 1 | 3 | .6 |
| Totals .. | 129 | 33 | 139 | 301 | 267 | 45 | 214 | 526 | 250 | 70 | 143 | 463 | 148 | 48 | 142 | 338 | 164 | 26 | 178 | 368 | 1,996 | 399.2 |

TABLE 46.

## RATS DESTROYED DURING 1928.

### I. ON VESSELS.

| *Number of* | *Jan.* | *Feb.* | *Mar.* | *April* | *May* | *June* | *July* | *Aug.* | *Sept.* | *Oct.* | *Nov.* | *Dec.* | *Total* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Black Rats .. .. .. | — | 16 | 44 | — | — | — | 29 | 1 | 126 | — | 1 | — | 217 |
| Brown Rats .. .. | — | — | — | — | — | — | — | — | 46 | — | — | — | 46 |
| Rats examined .. .. | — | 16 | 44 | — | — | — | 29 | 1 | 172 | — | 1 | — | 263 |
| Rats infected with Plague | — | — | — | — | — | — | — | — | — | — | — | — | — |

### II. IN DOCKS, QUAYS, WHARVES AND WAREHOUSES.

| *Number of* | *Jan.* | *Feb.* | *Mar.* | *April* | *May* | *June* | *July* | *Aug.* | *Sept.* | *Oct.* | *Nov.* | *Dec.* | *Total.* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Black Rats .. .. .. | — | 9 | 3 | 16 | 5 | 20 | 8 | 2 | 6 | 6 | 10 | 12 | 97 |
| Brown Rats .. .. .. | 1774 | 1750 | 2334 | 2188 | 2488 | 2446 | 1923 | 2045 | 1746 | 1915 | 938 | 1253 | 22800 |
| Rats examined .. .. | 587 | 521 | 667 | 546 | 721 | 653 | 621 | 632 | 479 | 712 | 302 | 345 | 6786 |
| Rats infected with Plague | — | — | — | — | — | — | — | — | — | — | — | — | — |

## TABLE 46A.

## PARTICULARS RELATING TO PLAGUE "INFECTED" OR "SUSPECTED" VESSELS ARRIVING IN THE PORT DURING 1928.

| Name of Vessel. 1. | Date of Arrival. 2. | Whether "Infected" or "Suspected." 3. | Methods of Rat Destruction Employed. 4. | Number of dead Rats recovered. 5. | Whether a Certificate of Deratization was issued ? 6. | Remarks. 7. |
|---|---|---|---|---|---|---|
| *Nicolas Pateras* .. | 14/3/28 | "Infected" | Trapping, poisoning and fumigating. | 44 | Yes | See Report. |

## TABLE 46B.

## MEASURES OF RAT DESTRUCTION ON VESSELS FROM PLAGUE-INFECTED PORTS (OTHER THAN THOSE INCLUDED IN TABLE A) ARRIVING IN THE PORT DURING 1928, AND NUMBER OF CERTIFICATES ISSUED IN RESPECT OF SUCH VESSELS.

| Total Number of Vessels arriving from Plague infected Ports. 1. | Number of such Vessels fumigated by S.O.2. 2. | Number of dead Rats recovered. 3. | Number of such Vessels fumigated by HCN. 4. | Number of dead Rats recovered. 5. | Number of such Vessels on which trapping, poisoning, etc., were employed. 6. | Number of dead Rats recovered. 7. | Number of such Vessels on which measures of Rat destruction were not carried out. 8. | No. of Fumigation Certificates Issued on Form "Port 11." | | Number of other Certificates issued. 11. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Deratisation. 9. | Exemption. 10. | |
| 11 | 1 | 30 | — | — | 10 | 188 | — | — | — | — |

## TABLE 46C.

## MEASURES OF RAT DESTRUCTION ON VESSELS (OTHER THAN THOSE INCLUDED IN TABLES A AND B) AND NUMBER OF CERTIFICATES ISSUED IN RESPECT OF SUCH VESSELS DURING 1928.

| Number of Vessels fumigated by S.O.2. 1. | Number of dead Rats recovered. 2. | Number of Vessels fumigated by H.C.N. 3. | Number of dead Rats recovered. 4. | Number of Vessels on which trapping, poisoning, etc., were employed. 5. | Number of dead Rats recovered. 6. | Number of Certificates Issued on Form "Port 11." | | Number of other Certificates issued. 9. | Remarks. 10. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Deratisation. 7. | Exemption. 8. | | |
| 1 | — | — | — | 1 | 1 | — | — | — | — |

TABLE 47.

## CHARACTER OF TRADE OF PORT.

## PASSENGER TRAFFIC DURING THE YEAR 1928.

| *No. of Passengers.* | *1st Class.* | *2nd Class.* | *3rd Class.* | *Cabin.* | *Tourists.* | *Class unobtainable.* | *Transmigrants.* | *Total.* |
|---|---|---|---|---|---|---|---|---|
| INWARDS. | | | | | | | | |
| Passengers from mailboats . . | 8,884 | 3,026 | 5,383 | 3,659 | 956 | 11,182 | (584) Included in previous columns | 33,090 |
| Passengers from Cargo Vessels (North of France, etc.) . . | — | — | 380 | — | — | — | — | 380 |
| | 8,884 | 3,026 | 5,763 | 3,659 | 956 | 11,182 | (584) | 33,470 |
| OUTWARDS. | | | | | | | | |
| Passengers from mailboats . . | 2,899 | 995 | 210 | — | — | 232 | — | 4,336 |

The countries from which passengers principally arrive are Africa, America, Australia, Canada, China, India, New Zealand and West Indies.

TABLE —48.

## FISH INSPECTIONS.

| | *Total amount inspected.* | | | *Total amount condemned.* | | |
|---|---|---|---|---|---|---|
| | *Tons* | *cwts.* | *lbs.* | *Tons* | *cwts.* | *lbs.* |
| Mixed fish .. .. | 8300 | 15 | 28 | 12 | 14 | 84 |
| Kippers .. .. | | | | 0 | 2 | 84 |
| Prawns .. .. | | | | 0 | 0 | 38 |
| Haddock .. .. | | | | 0 | 0 | 91 |
| Whelks .. .. | | | | 0 | 2 | 56 |
| Queens .. .. | | | | 0 | 2 | 56 |
| Salt Cod .. .. | | | | 0 | 4 | 0 |
| Crabs .. .. | | | | 1189 crabs | | |
| Crayfish .. .. | | | | 8 crayfish | | |
| TOTAL .. | 8300 | 15 | 28 | 13<br>1189 crabs<br>8 crayfish | 7 | 73 |

AL COLLEGE
SURGEONS OF ENG
29

## TABLE —49.

## BACTERIOLOGICAL EXAMINATIONS OF MILK.

| *Designation of milk.* | *No. of samples taken.* |
|---|---|
| Ordinary Milk | 498 |
| Grade " A " | 392 |
| Certified | 24 |
| Pasteurised | 38 |
| Hygienic | 26 |
| Ice-cream | 36 |
| | 1014 |

ROYAL COLLEGE OF SURGEONS
3 JUL 29